

2567

USEPA

US EPA RECORDS CENTER REGION 5



1002024

ADDENDUM NUMBER 1

TO

CLOSURE PLAN

SCOTT AIR FORCE BASE, ILLINOIS

1630100014 -- St. Clair County

12 March 1991

RECEIVED

MAR 21 1991

IEPA-DLPC

Prepared by:

375th Civil Engineering
Environmental Management Branch

ADDENDUM INSTRUCTIONS

1. Replace pages ii, 7, 8, 9, 10, 11, 12 and 13 with new pages ii, 7, 8, 9, 10, 11, 12 and 13.
2. Replace Attachment 7, Aqua Yard Sample Plan with new Attachment 7.
3. Add Attachment 11 for the CAMS Accumulation Point.
4. Add Attachment 12 for the Transportation Facility Accumulation Point.
5. Add Attachment 13 for the Field Printing Office Accumulation Point.

TABLE OF CONTENTS (Continued)

| <u>Section</u> | <u>Page</u> |
|--|-------------|
| 18. SIGNATORY REQUIREMENTS..... | 14 |
| 19. CERTIFICATIONS AND REPORTS..... | 14 |
| 20. STATUS OF FACILITY AFTER CLOSURE..... | 15 |
| 21. PART A MODIFICATION AND WITHDRAWALS..... | 15 |
| 22. POST-CLOSURE CARE..... | 15 |
| 23. LOCATION DOCUMENTATION FOR DISPOSAL UNITS..... | 16 |

LIST OF TABLES

| | |
|--|----|
| 1. WASTE TYPES STORED AT AQUA YARD..... | 3 |
| 2. HAZARDOUS WASTE ACCUMULATION POINTS..... | 4 |
| 3. UST STORED MATERIALS AT AQUA YARD..... | 5 |
| 4. HAZARDOUS SUBSTANCES STORED AT AQUA YARD..... | 6 |
| 5. SCHEDULE FOR CLOSURE FOR AQUA YARD..... | 7 |
| 6. ANALYTICAL PARAMETERS FOR CLOSURE..... | 10 |

LIST OF ATTACHMENTS

1. PART A PERMIT APPLICATION
2. MAP OF AREA SURROUNDING SCOTT AFB
3. MAP OF SCOTT AFB FACILITY
4. SITE PLAN OF AQUA YARD
5. AQUA YARD STORAGE FACILITY PLAN AND ELEVATION
6. UNDERGROUND STORAGE TANKS IN AQUA YARD
7. SOIL SAMPLE LOCATIONS
8. SOIL VOLATILE SAMPLING PROCEDURE
9. CLOSURE PLAN CERTIFICATION STATEMENT
10. CERTIFICATION OF FINAL CLOSURE
11. CAMS ACCUMULATION POINT
12. TRANSPORTATION FACILITY ACCUMULATION POINT
13. FIELD PRINTING FACILITY ACCUMULATION POINT

Section 8 - SCHEDULE FOR CLOSURE

Table 5 is a schedule for closure, based upon day 0 being the date a contract is let by Scott AFB following acceptance of the closure plan by IEPA. The contracting process in the Federal government does involve some delay from inception of a project to implementation. This time period will be expedited as quickly as possible to implement the closure. Scott AFB is in the process of removing the remaining waste stored at the Aqua Yard Site. No new shipment of waste is being accepted. The closure plan will initiate starting with no waste on site and decontamination being the first step.

Table 5
Schedule for Closure

| <u>Activity</u> | <u>Days</u> |
|---|-------------|
| * 1. Detergent wash and steam clean decontamination of the drum storage areas of facility | 0-5 |
| 2. Collect, package and analyze rinsate from decontamination | 0-10 |
| * 3. Re-clean areas if decontamination final rinsate indicates need | 10-15 |
| * 4. Soil sampling and analysis | 10-30 |
| 5. Review of sample results by IEPA for clean-up criteria | 30-90 |
| * 6. Excavation and packaging of contaminated soils | 90-110 |
| * 7. Verification sampling and analysis following excavation | 110-130 |
| 8. Obtain Waste Stream Permit for disposal of soils | 40-100 |
| 9. Dispose of all contaminated soils, rinsates, and other waste | 130-165 |
| 10. Account for all waste manifests and disposal actions | 165 |
| * 11. Prepare closure report and obtain independent certification | 145-175 |
| 12. Submit final documentation to IEPA for review/approval | 180 |

NOTE: * indicates critical points when independent engineer must review activity to certify proper procedures are being followed in order to comply with requirements of the closure plan as approved by IEPA.

Section 9 - AIR EMISSIONS (35 IAC 725.211)

Air emissions during the closure operation are expected to be minimal. Fugitive dust will be controlled by the application of a fine water mist on the work area. The work area is an open environment with natural

ventilation. No odors are anticipated since the waste materials will already be removed from the site. Solvent emissions will be minimal, associated only with equipment cleaning operations. Solvent usage during decontamination is not anticipated since detergents and steam cleaning will be used.

Section 10 - PERSONNEL SAFETY AND FIRE PREVENTION (35 IAC 725.211)

All personnel working or visiting the site will be required to use personal protective equipment appropriate to the operation being performed. All visitors will be required to sign an entry log to document their presence on site. They will receive an introductory site safety briefing from the on-site supervisor and will be required to wear the protective equipment. Personnel failing to follow the safety requirements will be removed from the site.

Personal protective equipment will vary as the closure proceeds. The required protection will be varies combinations of the following:

- Tyvek or other comparable coverall
- protective gloves, rubber or leather depending on operation
- safety glasses, goggles, or faceshield depending on operation
- protective footwear depending on operation
- hearing protection during periods of high noise levels
- respiratory protection if needed (not anticipated)

Cleanup operations will be conducted using procedures necessary to meet the OSHA Hazardous Waste Operations and Emergency Response Standard, 29 CFR 1910. General site workers engaged in activities that expose or potentially expose them to hazardous substances will be required to receive a minimum of 40 hours of safety and health training off site, plus a minimum of three days of actual field experience under the direct supervision of a trained, experienced supervisor. Managers and supervisors at the cleanup site will be required to have at least an additional 8 hours of specialized training on managing hazardous waste operations.

To augment the capabilities of the hazardous waste management personnel, the Fire Department on Scott AFB is prepared to respond to all fires involving hazardous wastes. Specific procedures that will be followed in the event of a fire or explosion are outlined in the Base Spill Prevention and Contingency Plan. Additionally, in the event of a spill, Scott Air Force Base also has available a spill team to respond to hazardous material incidents.

Section 11 - DECONTAMINATION OF TANKS, STRUCTURES AND SOILS

This section outlines procedures used to remove or decontaminate hazardous waste and its residues and constituents from the storage facility, containment area, dike, and associated equipment. There are no tanks involved in the storage of hazardous waste at this facility. The procedures to be followed to decontaminate and close this facility are as follows:

1. Foundation, Ramp and Sump

a. At the time of acceptance of Closure Plan all waste materials will have been removed from the storage facility for proper disposal. Access to the site for decontamination should be unlimited.

b. The surface of the containment area and all structural components will be washed with a detergent solution. Scrub brushes and scrapers may be required to remove some contaminants. Following the detergent, all surfaces will be washed using a pressure steam cleaner. All rinsate from the first wash will be collected in appropriate containers for disposal. Following the first wash, the area will be washed a second time with a detergent solution followed by a steam clean. The second rinsate will be collected in containers for appropriate disposal. The facility and equipment will be rinsed three times using clear water. The rinses will be collected for disposal. The final rinse will be collected separate from the rest of the cleaning solutions.

c. A sample of the final rinsate will be collected and analyzed in accordance with the procedures in Section 13 of this plan, Sample Collection and Analysis. If sample analysis indicates the rinsate is contaminated, as indicated by parameters in Section 13, decontamination procedures will be repeated, followed by further analysis of the rinsate.

d. The decontamination/analysis procedures will be repeated until the rinsate is found to be non-contaminated, as indicated by parameters in Section 13.

e. All rinsate waste will be collected using appropriate equipment such as squeegee, mops, pumps, etc. The material will be collected and sealed in appropriate DOT approved shipping containers for disposal. The amount of rinsate materials anticipated is less than 200 gallons. If the rinsate is found to be non-contaminated, it will be disposed in the Scott AFB sanitary sewerage system. If the material meets the requirements of a hazardous waste, it will be disposed through appropriate TSD facilities. A Waste Stream Permit will be obtained from IEPA for the disposal activity.

2. Soil

Soil will not be decontaminated on site. Contaminated soil identified through the sampling plan, Section 13, and the soil cleanup levels in Section 12, will be excavated and removed from Scott AFB to an appropriate TSD facility or special waste disposal operation, as appropriate. Soil excavation procedures are described in Section 14.

Section 12 - SOIL CLEANUP LEVELS (35 IAC 725.211 and 725.328)

Clean closure of the storage facility requires removal of all wastes, leachate and soils contaminated with waste or leachate that pose a present or potential threat to human health or the environment. Soil clean-up criteria will be established by the State of Illinois EPA following submission of initial sample analytical results. The initial results will be reviewed by a committee and will base the criteria on health risk factors. Since there is no groundwater used in the local area for drinking purposes, the criteria should be easy to establish. The committee review may cause a delay in the 180 day time frame for clean closure of the facility. If the initial sample analysis shows concentrations at or below detection limits, the site will be considered clean without the committee review process.

Section 13 - SAMPLING PLAN AND ANALYTICAL METHODS (35 IAC 725.211)

Closure of the storage facility includes analysis of various materials for hazardous constituents in order to demonstrate clean closure. The opportunity for waste migration from the facility to the environment is minimal. The soil sampling will be minimal around the facility. Other items to be sampled during the implementation of this plan are the rinsates from decontamination operations.

1. Analytical Parameters

The objective of this closure plan is to clean close the facility. The variety of materials stored at the facility over its operational life were reviewed for hazardous constituents. The information available on the materials is not specific enough to determine the exact makeup. For example, paint waste was determined to be ignitable, but the paint could have contained a variety of volatile and semi-volatile organics. The same could be true for waste oils and hydraulic fluids. The analytical parameters selected for this closure plan are listed in Table 6. These parameters should cover the wide range of materials stored at the facility.

Table 6
Analytical Parameters for Closure

| <u>SW 846 Method Options</u> | <u>Description</u> |
|------------------------------|---|
| 8240 | volatile organics |
| 8270 | semi-volatile organics |
| 1311 | Toxicity Characteristics Leaching Procedure |
| 9010 | cyanides |

2. Soil Sample Locations:

A total of 26 soil sample locations will be used around the Aqua Yard storage facility. (See diagram in Attachment 7) The number of samples required was based upon establishing a grid system using 20 foot grid lines. The size of the area is approximately 140 feet by 40 feet. A sample will be collected at the intersection of each grid line, with the exception of those falling on the containment area. The containment area will not be sampled since the integrity of the structure appears to be intact. In addition to the grid samples, a sample will be collected from each of 4 areas of stained gravel identified in the facility area that was used for storing drums. The stained areas are shown on Attachment 7.

3. Soil Sampling (depth) Increment:

The surficial geology in the Aqua Yard storage facility area consists of the Vandalia Till Member of the Glasford Formation consisting of sandy till with thin, lenticular bodies of silt, sand and gravel. It is calcareous, except where weathered, generally gray and moderately compact; it is commonly 20 to 25 feet thick. The geologic structure of the upper surface is expected to have a permeability of 0.6 to 2.0 inches per hour. Based on information available, the formation is expected to be fairly uniform with no significant stratification.

The release of contaminants to the environment from the waste management unit has a low potential, based on the type of containment and management history of the facility. Surface contamination is expected to be low or non-existent. The soil borings around the facility will be done to a depth of 1 foot. Samples will be collected using a split spoon sampler.

The soil sample for analysis will be the 1 foot composite collected in the split spoon sampler. The composite sample will be analyzed for the constituents identified in paragraph 1 above.

If the analysis finds constituents above the clean-up criteria identified by the State of Illinois EPA committee, further boring and analysis will be done in an effort to map depth of contamination. Follow-up sampling, if required, will involve borings to a depth of 20 feet using an auger. Samples will be collected using a split spoon sampler. The follow-up sampling will be done in the locations identified by the initial round of sampling.

Follow-up soil samples will be collected on the following increments:

Depth 0 to 2 feet: collect a sample at surface, 1 and 2 foot

Depth 2 to 20 feet: collect a sample at 4, 6, 8, 10, 12, 14, 16, 18 and 20 foot

Volatile organic analysis requires special handling. Soils for volatile organic analysis will be handled per requirements in Attachment 8.

4. Background Sampling:

Background soil sampling will not be necessary to establish the baseline clean-up levels for the closure. The clean-up criteria will be established by the Illinois EPA following the initial round of sampling.

The water used for decontamination will be sampled and analyzed for the constituents identified in paragraph 1 above. The analysis will be compared to the rinsate solutions collected following decontamination in order to determine if the area has been adequately cleaned.

5. Quality Assurance:

Sampling methods, analytical methods and equipment will follow guidance in U.S. EPA SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods. All soil samples collected will be handled in accordance with 40 CFR Part 261, Appendix III and the soil volatile sampling procedures outlined in Attachment 8. Analysis will be accomplished using SW-846 methodology by a laboratory that is a participant in the EPA or IEPA Contract Lab Program. Trip blanks and field blanks, along with standard chain-of-custody procedures will be used to ensure the integrity of the sample handling.

An independent professional engineer will be used to review the closure plan, field work, analytical and sampling procedures, and will provide a certification of the clean closure. The engineer will be independent of the contractor performing the closure activity. Problem areas identified by the reviews will be immediately corrected to ensure the closure work remains on schedule.

Sampling handling procedures will be as follows:

a. Samples will be identified and labeled with the sample number, location, type, date and time collected, and the person collecting. The information will also be recorded in the field log book to document activities at the site.

b. Samples will be immediately placed on ice and maintained at 4 degrees Celcius for transport to the laboratory for analysis. Delivery to the laboratory will be within 12 hours of collection in order to meet analytical requirements for volatile materials.

c. A chain-of-custody form identifying the samples will be filled out as the samples are collected. The form will be transported with the samples and serve as the control document.

Specifics on the contractor performing the operation, independent engineer providing certification, and analytical laboratory and methodology used for the analysis will be provided when a contract is established.

Section 14 - CONTAMINATED SOIL REMOVAL

In order to achieve clean closure at the storage facility, all contaminated soils will be removed from the site. The soil will be identified through the analytical procedures described previously. They will be excavated and hauled to an appropriate disposal facility, as determined by the waste characteristics.

Excavation limits will be established through the analytical procedures. The soil will be excavated to a depth one sample increment below the contaminated level. As an example, if the analysis measures concentrations exceeding allowable limits at the 4 foot level, excavation will be performed down to 6 foot, the next level analyzed.

Contaminated soil will require a Special Waste Stream permit for disposal. This permit will be obtained after the type of waste is identified. Therefore, there may be a lag time between excavation and actual removal from the site for disposal. Contaminated soils will be excavated and placed in appropriate storage containers while awaiting transport to the disposal facility. For small quantities, 55-gallon drums will be used to hold the soil. For larger quantities, dumpsters or roll-off storage boxes, lined with polyethylene will be used. Containers will be sealed at the end of each work day, and will be appropriately labeled. They will be maintained inside a secured fence area until transported from Scott AFB for disposal. The schedule for closure does take into account a lag time for obtaining the Special Waste Stream Permit. The waste material should be removed from Scott AFB within 90 days of generating it. If problems arise, a special exemption request will be filed with the State of Illinois to obtain a time extension to the 90 day limit.

Soil quantities of less than 5 cubic yards will be removed through the use of picks and shovels. The soil will be placed in the drums for storage and transport. Soil quantities greater than 5 cubic yards will be excavated using appropriate equipment such as a backhoe and/or front-end loader. The soil will be placed in the polyethylene lined dumpsters or boxes for storage and disposal. Manifests and placards will be used as per EPA and DOT regulations. The soil will be transported to an approved disposal facility following receipt of the Special Waste Stream Permit.


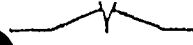
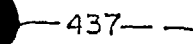

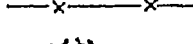

Section 15 - DISPOSAL OF HAZARDOUS WASTE AND CLEANUP RESIDUES

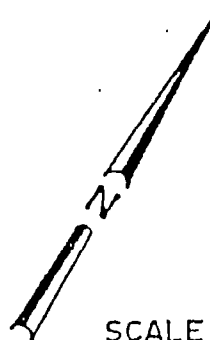
Upon formal notification to proceed with facility closure all hazardous waste will have been removed from the site. Any hazardous waste generated as a result of the closure operation will be disposed of under contractual agreement to a state and/or EPA approved TSD facility or recycling site. If this process cannot be accomplished within the allotted time for closure, the hazardous waste will be transferred to an operational DRMO with a valid TSD permit.

Special waste, as defined by the State of Illinois, will be disposed of at an appropriate state approved facility or recycling center. The contaminated soil, if any, is anticipated to fall into the special waste category.

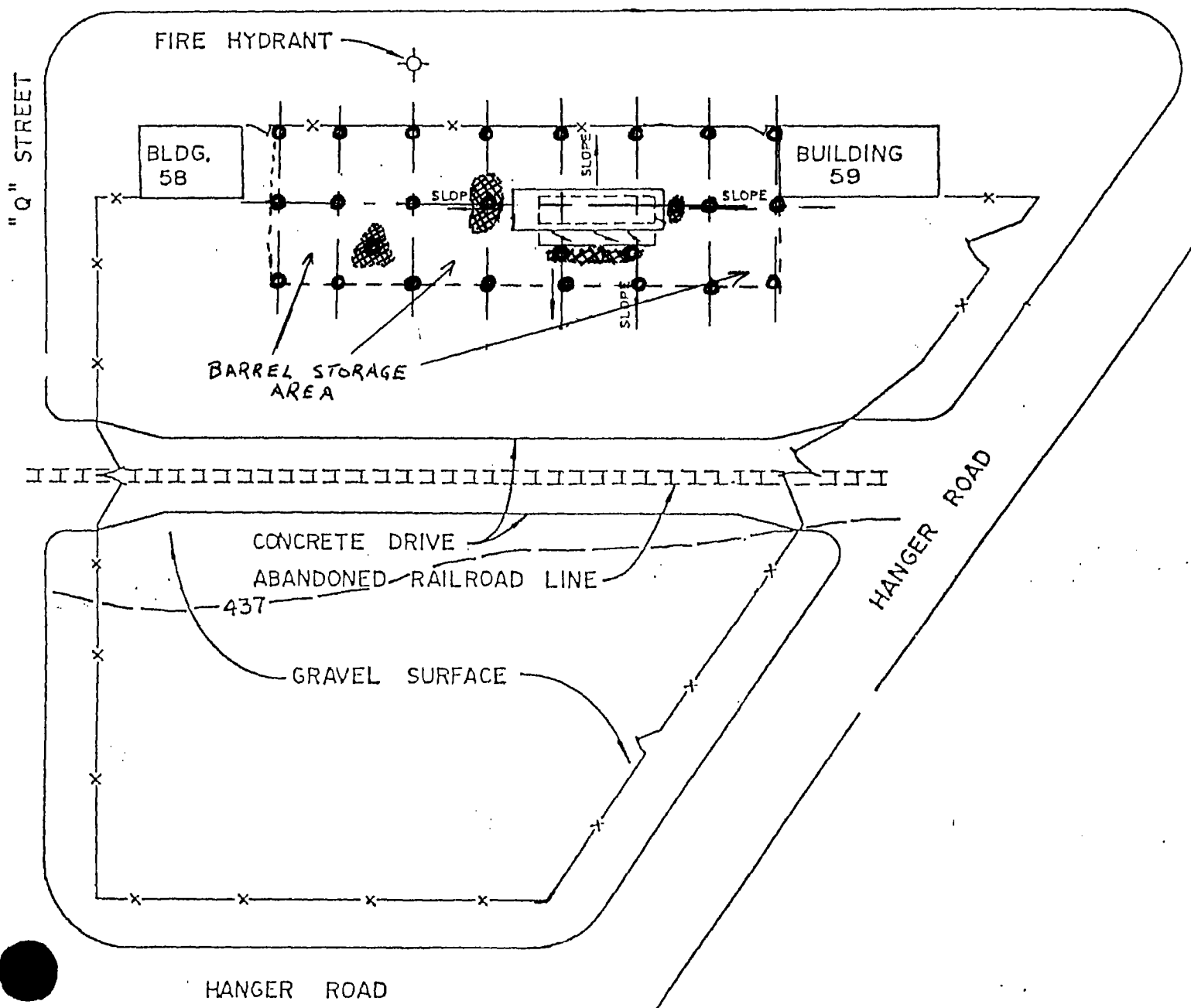
All spent cleaning agents, rinsate, disposable cleaning supplies such as brushes, towels, suits and gloves used for decontamination and sampling will be placed into drums for storage and disposal. The materials will be treated

LEGEND:

-  PEDESTRIAN GATE
-  VEHICULAR GATE
-  437— EXISTING CONTOUR
(FEET ABOVE SEA LEVEL)
-  —x—x— CHAIN LINK FENCE
-  STAINED SOIL
-  ○ SAMPLE LOCATIONS



SCALE: 1" = 40'



SITE PLAN
AQUA STORAGE YARD

CAMS ACCUMULATION POINT

The CAMS Accumulation Point was not identified on the Part A Permit as a hazardous waste storage facility. It was intended to be used for less than 90 day accumulation of waste prior to movement to the Aqua Yard facility or shipment off base for ultimate disposal. It was identified in an Illinois EPA inspection as having drums of waste exceeding the 90 day time limit; placing it in the unpermitted hazardous waste storage facility category.

1. Description of Waste Management Unit:

The area outside of building 441, CAMS Paint Shop, is used for the accumulation of hazardous waste on a less than 90 day basis. The site is located on the southwest corner of the parking lot adjacent to Building 441, along the northwest entrance to the building. (See Attachment 3)

The maximum number of drums accumulated in this location is 30. The area is concrete pavement covered with a portable storage shed and measures 9 feet by 12 feet. The drums are placed directly on the concrete with no secondary containment. The surface drainage pattern is to the south, away from the accumulation point and toward Building 441. The CAMS site is 4,100 feet east and 2,000 feet south of the closest boundary.

This accumulation point began operation in 1989 and will continue in operation for less than 90 day accumulation of hazardous waste following this clean closure.

2. Storage Area Pavement Description:

The area is concrete pavement covered with a portable storage shed. The drums are placed directly on the concrete with no secondary containment. The structural integrity of the concrete is fair with numerous surface cracks and significant deterioration of the concrete in small areas within the drum placement area. There are no joints in the concrete pavement and the deteriorated sections have crumbling and exposed aggregate approximately 1" to 2" below the surface of the pavement.

3. Inventory of Hazardous Waste:

The following is a list of substances with the appropriate EPA Hazardous Waste Numbers placed at the CAMS Accumulation Point:

| <u>Substance</u> | <u>HW EPA #</u> | <u>Quantity</u> |
|-----------------------|-----------------|-----------------|
| Fluorescent Penetrant | D001 | 110 gal |
| Fuel Spill Debris | D001 | 3,120 lbs |
| Hydraulic Fluid | D001 | 330 gal |
| JP-4 Fuel Residue | D001 | 1,100 lbs |
| Mercury | D009 | 75 lbs |
| Mineral Oil | D001 | 880 gal |
| Paint Booth Sludge | F001 | 110 gal |
| Paint Thinner | D001 | 385 gal |
| Stripper | F002 | 275 gal |
| Synthetic Oil | D001 | 990 gal |
| Water Soluble Oil | D001 | 55 gal |

4. Decontamination and Closure Procedure:

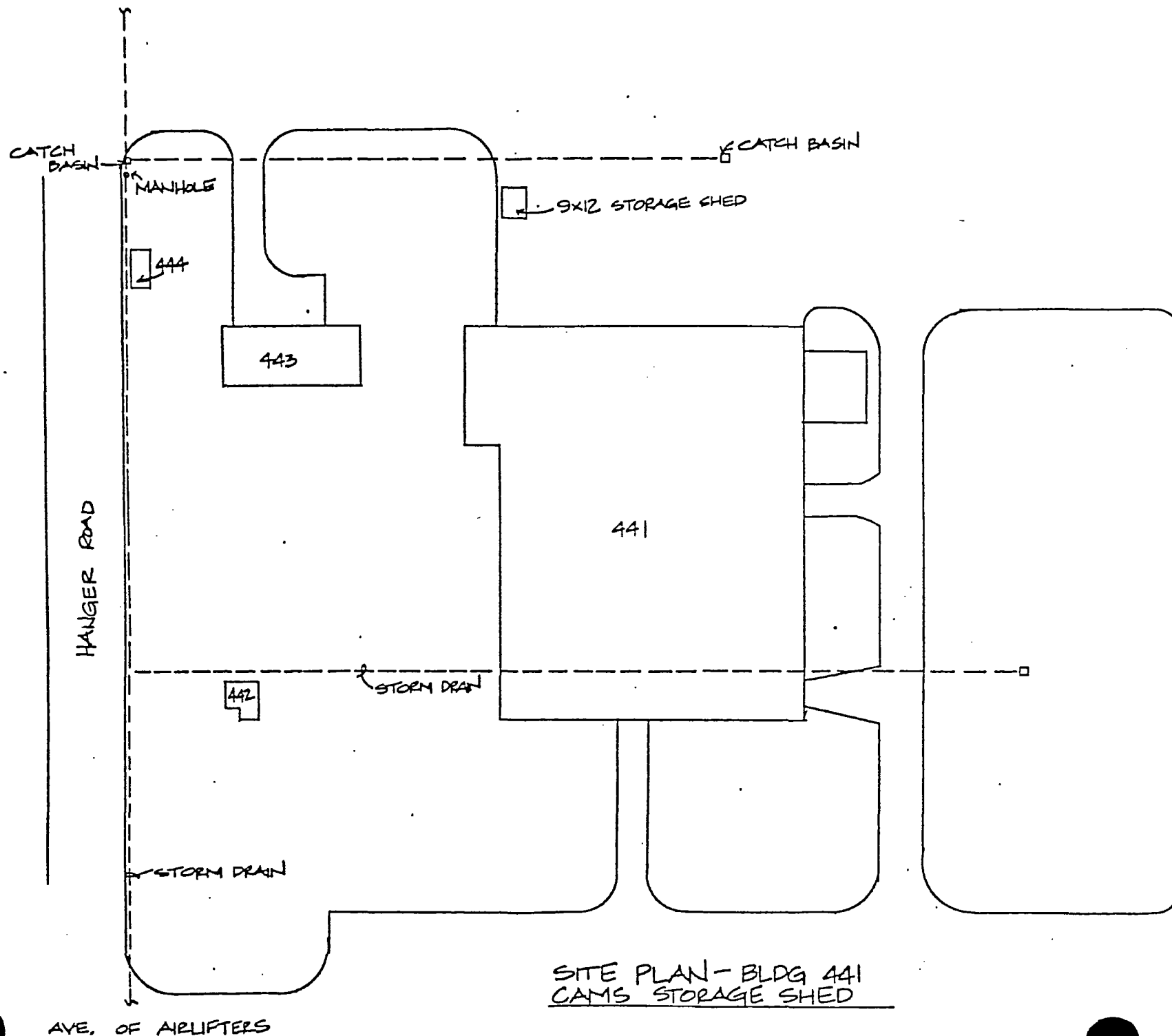
The accumulation point will be decontaminated as described in Section 11 of the Closure plan using the steam clean and triple rinse method. The rinsate will be collected and analyzed to determine if the area is considered clean. If contaminated soil is found in the area, it will be handled as described in Section 14 of the Closure plan.

5. Sampling Plan and Analytical Methods:

The sampling and analytical methods are described in Section 13 of this Closure plan. The sample locations are described on the attached facility plan for the CAMS Accumulation Point. The basic plan is to sample around the storage pad to check for any runoff. Since the integrity of the concrete pad is in question, core samples will be done through the pad at the location of the broken concrete. Samples will also be collected of any stained locations.

6. Status of Facility After Closure:

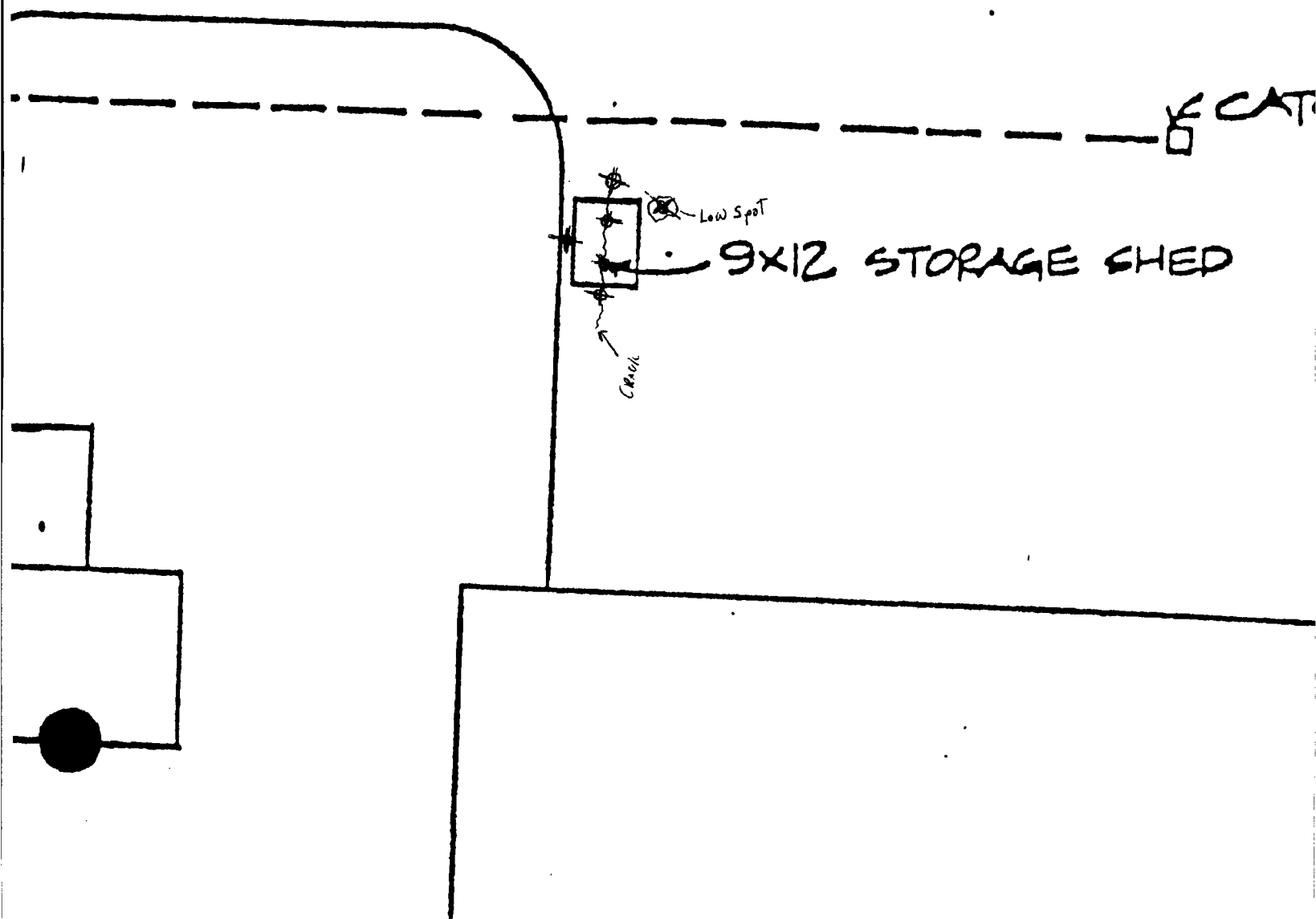
The CAMS Accumulation Point will continue to be used as a less than 90 day Hazardous Waste Accumulation point following clean closure activity.



SITE PLAN Bldg 441
CAMS Storage Shed

Legend:

* Sample Location (6 EA)



TRANSPORTATION FACILITY ACCUMULATION POINT

The Transportation Facility Accumulation Point was not identified on the Part A Permit as a hazardous waste storage facility. It was intended to be used for less than 90 day accumulation of waste prior to movement to the Aqua Yard facility or shipment off base for ultimate disposal. It was identified in an Illinois EPA inspection as having drums of waste exceeding the 90 day time limit; placing it in the unpermitted hazardous waste storage facility category.

1. Description of Waste Management Unit:

The area behind Building 548, Vehicle Maintenance Shop, is used for the accumulation of hazardous waste on a less than 90 day basis. The site is located on the southeast corner of Building 548 along the fence line to the south of the building. (See Attachment 3)

The maximum number of drums accumulated in this location is 22. The area is a concrete containment storage structure measuring 8 feet by 32 feet at the curb lines. The drums are placed directly on the concrete with the secondary containment. A deficiency in the secondary containment consists of a cut in the concrete curb along the entrance. The entire area is fenced with a gate at the entrance. The Transportation storage area surface drainage pattern is towards the south to the South Ditch. The transportation site is located on the south base boundary and 2,700 feet east of the closest boundary.

This accumulation point began operation in 1986 and will continue in operation for less than 90 day accumulation of hazardous waste following this clean closure.

2. Storage Area Pavement Description:

The area consists of a concrete containment structure measuring 8 feet by 32 feet at the curb lines. The concrete pavement contains no joints and only minor surface cracks. The concrete curbing along the pavement does not provide full containment for the area because there is no curbing along the entrance to the area. The curbing that exists is in good condition with joints on both sides approximately four feet along the concrete.

3. Inventory of Hazardous Waste:

The following is a list of substances with the appropriate EPA Hazardous Waste Numbers placed at the Transportation Facility Accumulation Point:

| <u>Substance</u> | <u>HW EPA #</u> | <u>Quantity</u> |
|-------------------|-----------------|-----------------|
| Carpet Cleaner | D002 | 20 gal |
| Caustic Soda | D002 | 100 lbs |
| Contaminated Fuel | D001 | 55 gal |
| Freon R-12 | U075 | 145 lbs |
| Mercury Residue | D009 | 100 lbs |
| Oil | F001 | 53 gal |
| Oil | D001 | 50 gal |
| Oil | None | 1100 gal |
| Penesolve | D002 | 500 lbs |
| Solvent | F001 | 50 gal |
| Thinner | D001 | 377 gal |

4. Decontamination and Closure Procedure:

The accumulation point will be decontaminated as described in Section 11 of the Closure plan using the steam clean and triple rinse method. The rinsate will be collected and analyzed to determine if the area is considered clean. If contaminated soil is found in the area, it will be handled as described in Section 14 of the Closure plan.

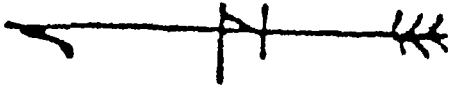
5. Sampling Plan and Analytical Methods:

The sampling and analytical methods are described in Section 13 of this Closure plan. The sample locations are described on the attached facility plan for the Transportation Facility Accumulation Point. The basic plan is to sample outside the entrance to the area since that is the only break in the secondary containment. Samples will also be collected of any stained locations.

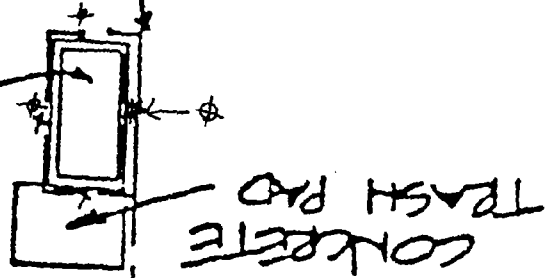
6. Status of Facility After Closure:

The Transportation Facility Accumulation Point will continue to be used as a less than 90 day Hazardous Waste Accumulation point following clean closure activity.

Site Plan Bldg 548
Transporation



CONCRETE CONTAINMENT AT
CONCRETE VERTICAL CURB



POWER POLE WITH
FOUR BUMPER POST

BASE BOUNDARY
FENCE (SOUTH)

ASPHALT
PAVEMENT

Legend:
x Sample location (3 in)

FIELD PRINTING FACILITY ACCUMULATION POINT

The Field Printing Facility Accumulation Point was not identified on the Part A Permit as a hazardous waste storage facility. It was intended to be used for less than 90 day accumulation of waste prior to movement to the Aqua Yard facility or shipment off base for ultimate disposal. It was identified in an Illinois EPA inspection as having drums of waste exceeding the 90 day time limit; placing it in the unpermitted hazardous waste storage facility category.

1. Description of Waste Management Unit:

The area outside Building 500, Field Printing Office, is used for the accumulation of hazardous waste on a less than 90 day basis. The site is located on the east side of Building 700, along side of the building near the loading dock and the concrete drive. (See Attachment 3)

The maximum number of drums accumulated in this location is 10. The area is grass covered and the drums were either placed on a wooden pallet or directly on the ground. The surface drainage pattern is to the south, along the side of the building where waste was stored. The Field Printing Office is 1,400 feet north and 6,600 feet east of the closest boundary.

This accumulation point began operation in February 1990 and will continue in operation for less than 90 day accumulation of hazardous waste following this clean closure.

2. Storage Area Pavement Description:

The area is grass covered and the drums were either placed on wooden pallet or directly on the ground.

3. Inventory of Hazardous Waste:

The following is a list of substances with the appropriate EPA Hazardous Waste Numbers placed at the Field Printing Facility Accumulation Point:

| <u>Substance</u> | <u>HW EPA #</u> | <u>Quantity</u> |
|----------------------|-----------------|-----------------|
| Spill Residue | D001 | 20 lbs |
| Blanket Wash Solvent | D001 | 275 gal |
| Developer | D002 | 131 gal |
| Finisher | D002 | 20 gal |

4. Decontamination and Closure Procedure:

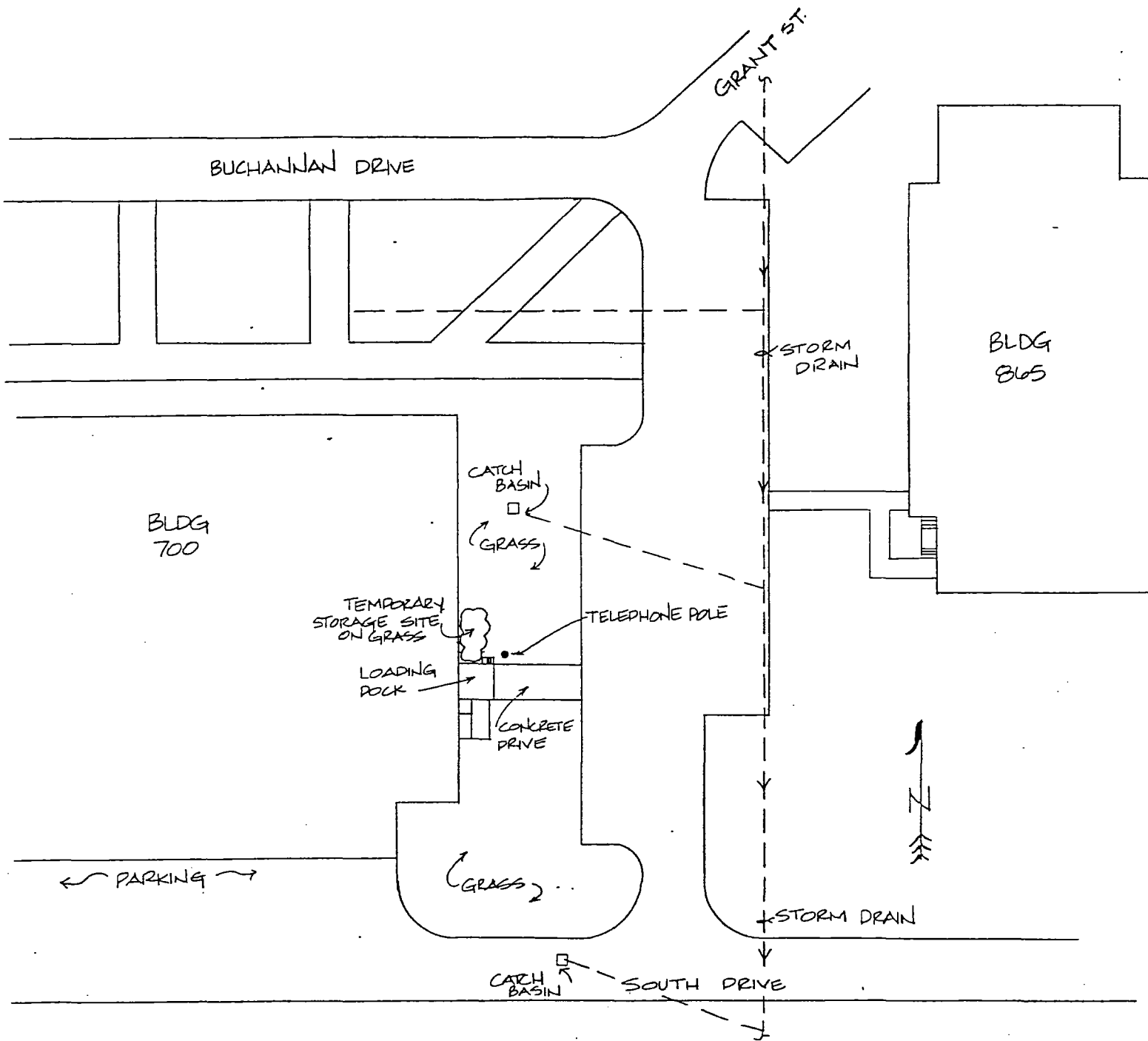
The accumulation point equipment will be decontaminated as described in Section 11 of the Closure plan using the steam clean and triple rinse method. The rinsate will be collected and analyzed to determine if the equipment is considered clean. If contaminated soil is found in the area, it will be handled as described in Section 14 of the Closure plan.

5. Sampling Plan and Analytical Methods:

The sampling and analytical methods are described in Section 13 of this Closure plan. The sample locations are described on the attached facility plan for the Field Printing Facility Accumulation Point. The basic plan is to sample on a grid pattern accross the area since there is no pavement or secondary containment. Samples will also be collected of any stained locations.

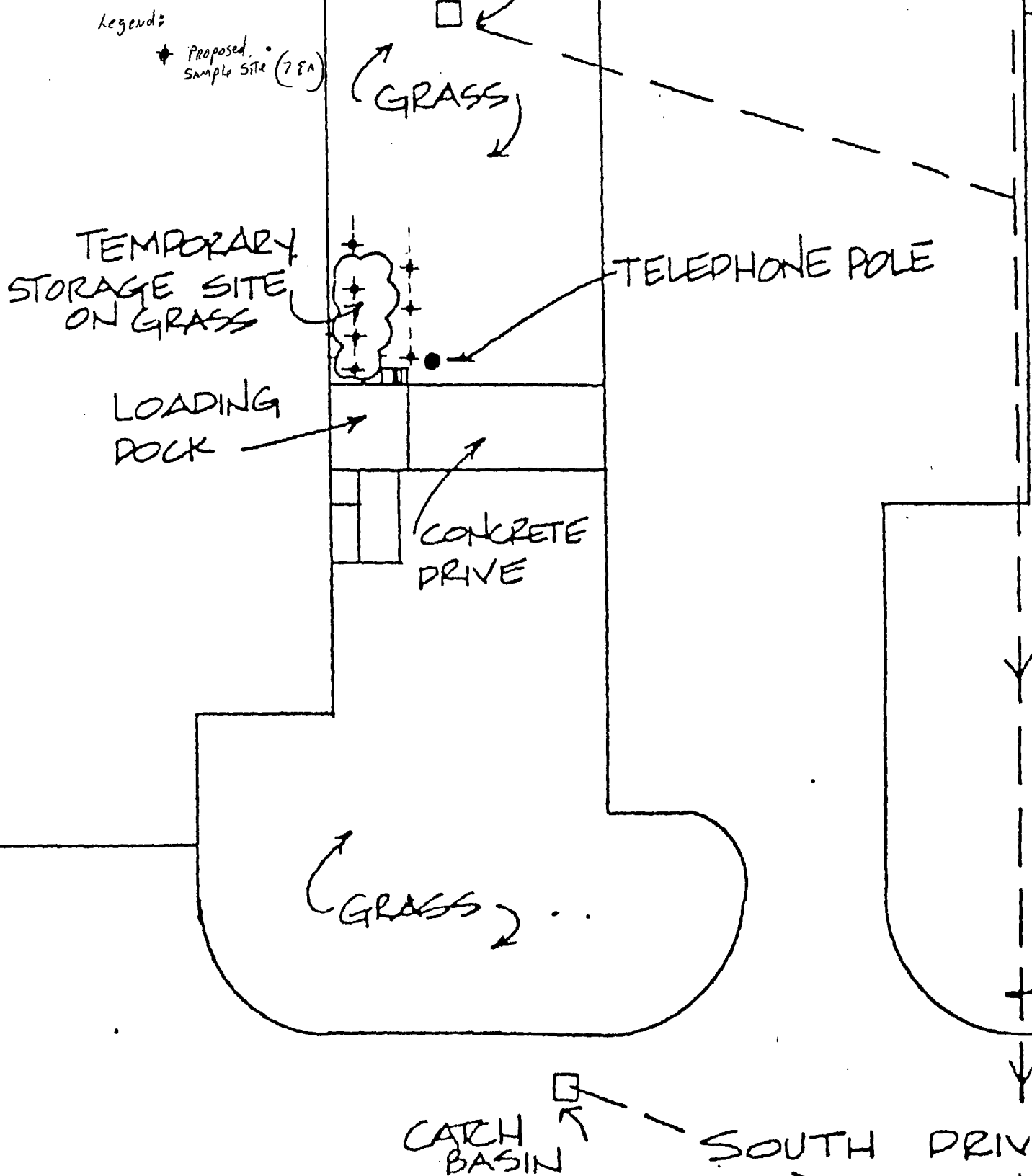
6. Status of Facility After Closure:

The Field Printing Facility Accumulation Point will continue to be used as a less than 90 day Hazardous Waste Accumulation point following clean closure activity. The facility will be improved to provide secondary containment in the event any spills occur.



SITE PLAN BLDG 700
FIELD PRINTING OFFICE





Site Plan Bldg 700.
Field Printing Office

C 567



DEPARTMENT OF THE AIR FORCE

HEADQUARTERS 375TH AIR BASE GROUP (MAC)

SCOTT AIR FORCE BASE, ILLINOIS 62225

6 MAR 1991

REPLY TO
ATTN OF

CC

SUBJECT: Submittal of Revised Closure Plan - 1630100014--St. Clair County

TO Illinois Environmental Protection Agency
ATTN: T. E. Fitzgerald
Division of Land Pollution Control
2200 Churchill Road
P.O. Box 19276
Springfield, Illinois 62794-9276

1. The attached revised Closure Plan is submitted for your review and comments. The plan is totally rewritten in order to incorporate your review comments dated 4 Feb 1991 and received by this office on 11 Feb 91. Your extensive review of the original plan was appreciated. It pointed out a misconception that was based on incorrect information provided to you in the original plan.
2. The original plan identified several waste facilities on Scott AFB that exceeded the original Part A interim approval. The facilities identified were, in fact, less than 90 day accumulation points, not permitted hazardous waste facilities. The only location on Scott AFB used for the storage of hazardous waste in excess of 90 days was the Aqua Yard Storage Facility identified on the Part A and this Closure Plan. The accumulation points will continue to operate on a less than 90 day basis, as these facilities require a place to consolidate waste for shipment.
3. If you have any questions concerning the information provided, please contact our Environmental Coordinator, Capt Anderson, (618) 256-2092. Thank you for your assistance.

Daniel J. Coonan

DANIEL J. COONAN III, Colonel, USAF
Commander

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Closure Plan

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CLOSURE PLAN

SCOTT AIR FORCE BASE, ILLINOIS

1630100014 -- St. Clair County

26 February 1991

Prepared by:

375th Civil Engineering
Environmental Planning Branch

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TABLE OF CONTENTS

| <u>Section</u> | <u>Page</u> |
|---|-------------|
| 1. PURPOSE AND DEFINITIONS..... | 1 |
| 2. DESCRIPTION OF FACILITY..... | 1 |
| 3. DESCRIPTION OF WASTE MANAGEMENT UNITS..... | 2 |
| - 1. Line No. 1: Aqua Yard (EPA Process Code S01)..... | 2 |
| - 2. Line No. 2: Bldg 540 (EPA Process Code S01)..... | 3 |
| 4. MAP OF FACILITY..... | 5 |
| 5. DETAILED DRAWINGS OF HAZARDOUS WASTE MANAGEMENT UNIT(S)..... | 5 |
| 6. STORAGE AREA PAVEMENT DESCRIPTION..... | 5 |
| 7. INVENTORY OF HAZARDOUS WASTE..... | 6 |
| 8. SCHEDULE FOR CLOSURE..... | 7 |
| 9. AIR EMISSIONS..... | 7 |
| 10. PERSONNEL SAFETY AND FIRE PREVENTION..... | 8 |
| 11. DECONTAMINATION OF TANKS, STRUCTURES AND SOILS..... | 8 |
| - 1. Foundation, Ramp and Sump..... | 8 |
| - 2. Soil..... | 9 |
| 12. SOIL CLEANUP LEVELS..... | 9 |
| 13. SAMPLING PLAN AND ANALYTICAL METHODS..... | 10 |
| - 1. Analytical Parameters..... | 10 |
| - 2. Soil Sample Locations..... | 10 |
| - 3. Soil Sampling (depth) Increment..... | 11 |
| - 4. Background Sampling..... | 11 |
| - 5. Quality Assurance..... | 12 |
| 14. CONTAMINATED SOIL REMOVAL..... | 13 |
| 15. DISPOSAL OF HAZARDOUS WASTE AND CLEANUP RESIDUES..... | 13 |
| 16. DISPOSAL UNIT CLOSURES..... | 14 |
| 17. DESCRIPTION OF EQUIPMENT CLEANING..... | 14 |



TABLE OF CONTENTS (Continued)

| <u>Section</u> | <u>Page</u> |
|--|-------------|
| 18. SIGNATORY REQUIREMENTS..... | 14 |
| 19. CERTIFICATIONS AND REPORTS..... | 14 |
| 20. STATUS OF FACILITY AFTER CLOSURE..... | 15 |
| 21. PART A MODIFICATION AND WITHDRAWALS..... | 15 |
| 22. POST-CLOSURE CARE..... | 15 |
| 23. LOCATION DOCUMENTATION FOR DISPOSAL UNITS..... | 16 |

LIST OF TABLES

| | |
|--|----|
| 1. WASTE TYPES STORED AT AQUA YARD..... | 3 |
| 2. HAZARDOUS WASTE ACCUMULATION POINTS..... | 4 |
| 3. UST STORED MATERIALS AT AQUA YARD..... | 5 |
| 4. HAZARDOUS SUBSTANCES STORED AT AQUA YARD..... | 6 |
| 5. SCHEDULE FOR CLOSURE FOR AQUA YARD..... | 7 |
| 6. ANALYTICAL PARAMETERS FOR CLOSURE..... | 10 |

LIST OF ATTACHMENTS

1. PART A PERMIT APPLICATION
2. MAP OF AREA SURROUNDING SCOTT AFB
3. MAP OF SCOTT AFB FACILITY
4. SITE PLAN OF AQUA YARD
5. AQUA YARD STORAGE FACILITY PLAN AND ELEVATION
6. UNDERGROUND STORAGE TANKS IN AQUA YARD
7. SOIL SAMPLE LOCATIONS
8. SOIL VOLATILE SAMPLING PROCEDURE
9. CLOSURE PLAN CERTIFICATION STATEMENT
10. CERTIFICATION OF FINAL CLOSURE



CLOSURE PLAN

SCOTT AIR BASE, ILLINOIS

1630100014 -- St. Clair County

Section 1 - PURPOSE AND DEFINITIONS

This plan delineates the procedures to perform a closure of the hazardous waste management units located at Scott Air Force Base, Illinois. This closure plan has as its objective a clean closure of this facility and is designed to ensure that the need for further maintenance and controls is minimized; the threat to human health and the environment is minimized or eliminated; and the escape of hazardous waste constituents, leachate, contaminated rainfall, or waste decomposition products to the ground or surface water or the atmosphere is avoided. When approved, a copy of the closure plan will be maintained on site until certification of clean closure is accepted by Illinois Environmental Protection Agency.

Closure is defined by the Illinois Environmental Protection Agency (IEPA) as the action taken to secure the hazardous waste management units in a manner which will protect human health and the environment in accordance with the closure requirements of 35 Illinois Administrative Code Parts 724 and/or 725. Clean closure refers to RCRA closure which includes the removal of all wastes, waste residues, leachate, liners and soils (including groundwater) contaminated with waste or leachate that pose a present or potential threat to human health or the environment.

Scott Air Force Base (Scott AFB) identified two container storage units in the Part A Permit submitted in December 1985; the Aqua Yard and Building 540. Building 540 has historically been used exclusively for the storage of polychlorinated biphenyl (PCB) transformers. In accordance with 35 IAC 721.108 PCB storage is governed by the requirements of the Toxic Substances Control Act (TSCA) and will be closed under those requirements when no longer necessary. This plan calls for the complete closure of the Aqua Storage Yard Facility.

Section 2 - DESCRIPTION OF FACILITY (35 IAC 725.212(b)(1))

Scott AFB is located within the Illinois portion of the St. Louis metropolitan area called Metro East. It is situated in a semi-rural setting about 25 miles east of downtown St. Louis, Missouri and is surrounded by the Illinois communities of Bellville, O'Fallon, Lebanon and Mascoutah. The base encompasses 2,467 acres.

Scott AFB falls under the Military Airlift Command (MAC). The host unit at Scott AFB is the 375th Military Airlift Wing (MAW) which supports the following worldwide headquarters at the base:

- U.S. Transportation Command
- Military Airlift Command
- Air Force Communications Command (AFCC)

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- Air Rescue and Recovery Service (ARRS)
- Air Weather Service (AWS)
- Defense Commercial Communication Office (DECCO)

In addition, the following squadrons of the 375 MAW are assigned and operate from the base:

- 11th Aeromedical Airlift Squadron (AAS)
- 57th Aeromedical Evacuation Squadron (AES)
- 1401st Military Airlift Squadron
- 1375th Flying Training Squadron

Hazardous materials are used at Scott AFB for aircraft maintenance and other industrial operations required to support the airlift mission. Waste fuels, solvents, paints, thinners and small amounts of other wastes are generated at various locations on base.

The Defense Logistics Agency (DLA) is the organization responsible for the disposal of hazardous materials/waste throughout the Department of Defense. DLA then delegated this mission to the Defense Reutilization and Marketing Service (DRMS) which controls 217 Defense Reutilization and Marketing Offices (DRMOs) and Off-site Branches (OSBs). The DRMOs and OSBs are the field level operations responsible for accepting hazardous materials/wastes from DoD generators such as Scott AFB, and for disposing of these items in an approved manner. The DRMO maintains a small field office at Scott AFB. Primary responsibilities include the disposal of all surplus scrap property through redistribution, transfer, donation, and sale, for organizations at the base as well as off-base generators.

The Hazardous Waste Storage Facilities (HWSF) at Scott AFB, under direct control of 375th Civil Engineering Squadron, stored hazardous waste materials for periods exceeding 90 days while the DRMO office arranged for proper disposal through qualified contractors. The HWSFs at Scott AFB received hazardous waste generated from the base itself. No hazardous waste was received from off-site facilities.

Section 3 - DESCRIPTION OF WASTE MANAGEMENT UNITS

1. Line No. 1: Aqua Yard (EPA Process Code S01 - 2,640 gallon):

The Aqua Yard Storage Facility is a storage structure designed for storing barrels of waste. Dimensions of the facility are 8 feet by 32 feet at the curb lines. The roof measures 10 feet by 40 feet, including overhangs. It is located on the north side of the Aqua Storage Yard, a fenced in area measuring 40,350 square feet. The topography of the area is essentially flat with stormwater runoff draining off the yard via conventional storm drainage paths and structures.

The storage area was operational for storage of hazardous waste from 1984 until November 1990. This waste management unit is to be closed as part of this closure plan. Waste types stored at the facility through the course of its operation are listed in Table 1.



Table 1
Waste Types Stored at Aqua Yard

| <u>EPA Code</u> | <u>Waste Description</u> |
|-----------------|---|
| D001 | Ignitable |
| D002 | Corrosives |
| D006 | Cadmium |
| D007 | Chromium |
| D008 | Lead |
| D009 | Mercury |
| F001 | spent halogenated solvents used in degreasing |
| F002 | spent halogenated solvents |
| F003 | spent non-halogenated solvents |
| F005 | spent non-halogenated solvents |

2. Line No. 2: Bldg 540 (EPA Process Code S01 - 4,000 gallon):

Building 540 is a 700 square foot structure used to store PCB and PCB contaminated equipment. A reinforced concrete curb containment area is located in the west half of the building. The curbs are 20 inches tall. Dimensions of the concrete curbed area are 12 feet by 15 feet for a total secondary containment area of 183 square feet. A 12 feet by 6 feet concrete loading dock is located on the north exterior of the building. PCB equipment is moved from the loading dock area to the containment area through the use of an overhead 1-ton crane.

Building 540 is managed under requirements of TSCA. It was originally listed on the Part A submitted in 1985, even though it never stored or contained hazardous waste. The waste materials stored were exclusively PCBs. This area is expected to be closed after all PCB transformers are removed from the base. We anticipate closure of this facility December 1991. The closure will be accomplished under requirements of TSCA.

The Aqua Yard and Building 540 are under management of the 375th Civil Engineering Squadron. Waste materials placed in the facilities were stored in Department of Transportation (DOT) containers, except for the transformers, and were consigned to the hazardous waste storage facility (HWSF) on a turn-in document for off-site disposal.

3. Scott AFB maintains several hazardous waste accumulation points for waste generators. The accumulation points do not store waste more than 90 days and, as a routine operation, move the waste to the HWSF as soon as the containers are full. The 90 day clock on the waste barrels starts as soon as the first drop is placed in the container. Storage and handling requirements at the accumulation points meet the IAC regulations for less than 90 day accumulation. Following closure of the HWSF, the accumulation points will be maintained as operational areas. Waste will be moved through for disposal, ensuring the 90 day time limit is met for disposal.



Hazardous Waste accumulation points maintained on Scott AFB that will remain operational for future waste handling are listed in Table 2.

Table 2
Hazardous Waste Accumulation Points

| <u>Building No.</u> | <u>Organization</u> |
|---------------------|-----------------------------------|
| 441 | CAMS Storage Facility |
| 548 | Transportation Storage Facility |
| 700 | Field Printing Office |
| 515 | CES Grounds Maintenance |
| 538 | CES Power Production |
| 1192 | Golf Course Maintenance |
| 3190 | 1842 EEG |
| 3680 | 102 USA/FASF Aircraft Maintenance |
| 3675 | 102 USA/FASF Vehicle Maintenance |
| 4001 | 375 Supply |

At such time as the accumulation points are deemed to no longer be necessary, they will be managed as directed by 35 IAC 722.134, paragraph a)1), which states that the generator is exempt from all requirements of 35 IAC 725, Subparts G and H, except for 35 IAC 725.211 and 725.214. The requirements of 725.211 require that units be closed in a manner that:

- a. Minimizes the need for further maintenance; and
- b. Controls, minimizes or eliminates, to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off or hazardous waste decomposition products to the ground or surface waters or to the atmosphere, and
- c. Complies with the closure requirements of this Part, including, but not limited to, the requirements of Section 725.297, 725.328, 725.358, 725.380, 725.410, 725.451, 725.481, and 725.504.

The requirements listed in the Sections specified in subparagraph c above do not apply to container storage facilities. The accumulation points are simple container storage units. Closure activities will involve cleaning the area and a simple sampling plan to verify no contamination from the waste management activities. If spills are documented at the units during the operational life, the spilled materials will be taken into account during post-closure sampling. No waste materials will remain at the units following their closure.

A copy of the original Part A application is Attachment 1 to this closure plan. Since none of the units will remain open under requirements of RCRA, a revised Part A is not submitted.



Section 4 - MAP OF FACILITY

Scott AFB is located in Shiloh Valley, Township 1 North, Range 7 West. The base is located in Sections 14 and 15. The Aqua Yard is located in Section 15.

The area surrounding Scott AFB is shown in Attachment 2. The map is scaled to 3 1/2 inch = 1 mile and depicts major access routes, and waterways surrounding Scott AFB. Scott AFB is depicted on the map.

Attachment 3 is a scaled topographic map of Scott AFB showing the location of the Aqua Yard Storage Facility, Building 540 and the accumulation points. The map scale is 1 inch = 400 feet and the contour interval is 5 foot.

Section 5 - DETAILED DRAWINGS OF HAZARDOUS WASTE MANAGEMENT UNIT(S)

Attachment 4 is a site plan for the Aqua Yard Facility at a scale of 1 inch = 40 feet and a contour interval of 1 foot. This figure shows the relationship of the storage structure to other structures in the Aqua Yard area. The immediate boundary of the Aqua Yard is a 6 foot high security fence. This figure shows the surface drainage pattern in the vicinity of Aqua Yard to be away from the storage structure in all directions and generally to the south for the yard itself.

The Aqua Yard storage structure is detailed on Attachment 5, Aqua Yard Plan and Elevation. The drawing provides specific details on the construction of the facility at a scale of 1 inch = 2 feet. The drawing provides details on dimensions, curbs, sumps, floor drains and other appurtenant structures.

Attachment 6 is a drawing depicting underground storage tanks located in the Aqua Yard area and their relationship to the Aqua Yard storage structure for hazardous waste. The tanks are all scheduled for contract removal during FY 91. There are 16 tanks located in the yard. The drawing provides details on the capacities of each. Materials stored in the tanks are listed in Table 3.

Table 3
UST Stored Materials at Aqua Yard

| | |
|---------------------|--------------------|
| number 2 fuel oil | number 6 fuel oil |
| special fuels | de-icing fluid |
| waste synthetic oil | contaminated fuels |
| jet fuel | special liquids |

Section 6 - STORAGE AREA PAVEMENT DESCRIPTION

Line 1: Aqua Yard (EPA Process Code S01 - 2640 gal.):

The Aqua Yard Storage Facility consists of a barrel containment storage structure which is 8 feet by 32 feet at the curb lines. The containment structure consists of a concrete surface with a 6-inch concrete curb. There are no joints in either the concrete surface or curb. The structural



integrity of the concrete is good with only surface cracks evident on the pavement and curbs. No cracks were observed that breach the structural integrity of the containment. The containment system is coated with Phenoline 305 Sealing Compound. There are no drains in the containment area that would allow release of spilled materials to the environment.

Section 7 - INVENTORY OF HAZARDOUS WASTE

Line 1: Aqua Yard (EPA Process Code S01 - 2640 gal.): Table 4 is a list of substances with the EPA Hazardous Waste Number stored at the Aqua Yard facility during its operational life.

Table 4
Hazardous Substances Stored at Aqua Yard

| <u>Substance</u> | <u>HW EPA #</u> | <u>Quantity</u> |
|------------------------------|-----------------|-----------------|
| Activator | D002 | 19 gal |
| ammonia persulfate | D002 | 110 gal |
| C-100 Insecticide | D001 | 45 gal |
| caustic soda | D001 | 700 lbs |
| ethylene glycol | None | 645 gal |
| Gas Path Cleaner | None | 55 gal |
| gasoline | D001 | 175 gal |
| hydraulic fluid | F001 | 55 gal |
| hydraulic fluid | F005 | 55 gal |
| methyl ethyl ketone | F005 | 565 gal |
| mercury spill debris | D009 | 7 lbs |
| methylene chloride | F001 | 100 gal |
| naptha | D001 | 110 gal |
| oil | None | 1,760 gal |
| oil | D001 | 1,480 gal |
| oil | D002 | 55 gal |
| oil | D007 | 495 gal |
| oil | F003 | 55 gal |
| oil sludge | D008 | 165 gal |
| oil/gasoline mixture | D006 | 55 gal |
| PD680 | D001 | 55 gal |
| paint thinner | D007 | 55 gal |
| paint waste | D001 | 847 gal |
| paint waste | F003 | 415 gal |
| paint waste | F005 | 80 gal |
| paint waste | None | 10 lbs |
| paint waste | F002 | 110 gal |
| petroleum distillate | D001 | 520 gal |
| sodium persulfate | D002 | 110 gal |
| spill debris | None | 8,705 lbs |
| spill debris (fuel & oil) | D001 | 13,340 lbs |
| spill debris (fuel & oil) | D001 | 380 gal |
| spray paint cans | D001 | 85 gal |
| spray paint cans | None | 85 gal |
| tar | D001 | 155 gal |
| toluene | D001 | 55 gal |
| trichloroethane (spill deb.) | F001 | 200 lbs |
| xylene | F003 | 83 gal |



Section 8 - SCHEDULE FOR CLOSURE

Line 1: Aqua Yard (EPA Process Code S01 - 2640 gal.): Table 5 is a schedule for closure, based upon day 0 being the date a contract is let by Scott AFB following acceptance of the closure plan by IEPA. Scott AFB is in the process of removing the remaining waste stored at the site. No new shipments of waste is being accepted. The closure plan will initiate starting with no waste on site and decontamination being the first step.

Table 5
Schedule for Closure for Aqua Yard

| <u>Activity</u> | <u>Days</u> |
|---|-------------|
| * 1. Detergent wash and steam clean decontamination of the drum storage areas of facility | 0-5 |
| 2. Collect, package and analyze rinsate from decontamination | 0-10 |
| * 3. Re-clean areas if decontamination final rinsate indicates need | 10-15 |
| * 4. Soil sampling and analysis | 10-30 |
| * 5. Excavation and packaging of contaminated soils | 30-50 |
| * 6. Verification sampling and analysis following excavation | 50-70 |
| 7. Obtain Waste Stream Permit for disposal of soils | 40-100 |
| 8. Dispose of all contaminated soils, rinsates, and other waste | 100-145 |
| 9. Account for all waste manifests and disposal actions | 165 |
| * 10. Prepare closure report and obtain independent certification | 145-175 |
| 11. Submit final documentation to IEPA for review/approval | 180 |

NOTE: * indicates critical points when independent engineer must review activity to certify proper procedures are being followed in order to comply with requirements of the closure plan as approved by IEPA.

Section 9 - AIR EMISSIONS (35 IAC 725.211)

Air emissions during the closure operation are expected to be minimal. Fugitive dust will be controlled by the application of a fine water mist on the work area. The work area is an open environment with natural ventilation. No odors are anticipated since the waste materials will already be removed from the site. Solvent emissions will be minimal, associated only with equipment cleaning operations. Solvent usage during decontamination is not anticipated since detergents and steam cleaning will be used.



Section 10 - PERSONNEL SAFETY AND FIRE PREVENTION (35 IAC 725.211)

All personnel working or visiting the site will be required to use personal protective equipment appropriate to the operation being performed. All visitors will be required to sign an entry log to document their presence on site. They will receive an introductory site safety briefing from the on-site supervisor and will be required to wear the protective equipment. Personnel failing to follow the safety requirements will be removed from the site.

Personal protective equipment will vary as the closure proceeds. The required protection will be varies combinations of the following:

- Tyvek or other comparable coverall
- protective gloves, rubber or leather depending on operation
- safety glasses, goggles, or faceshield depending on operation
- protective footwear depending on operation
- hearing protection during periods of high noise levels
- respiratory protection if needed (not anticipated)

Cleanup operations will be conducted using procedures necessary to meet the OSHA Hazardous Waste Operations and Emergency Response Standard, 29 CFR 1910. General site workers engaged in activities that expose or potentially expose them to hazardous substances will be required to receive a minimum of 40 hours of safety and health training off site, plus a minimum of three days of actual field experience under the direct supervision of a trained, experienced supervisor. Managers and supervisors at the cleanup site will be required to have at least an additional 8 hours of specialized training on managing hazardous waste operations.

To augment the capabilities of the hazardous waste management personnel, the Fire Department on Scott AFB is prepared to respond to all fires involving hazardous wastes. Specific procedures that will be followed in the event of a fire or explosion are outlined in the Base Spill Prevention and Contingency Plan. Additionally, in the event of a spill, Scott Air Force Base also has available a spill team to respond to hazardous material incidents.

Section 11 - DECONTAMINATION OF TANKS, STRUCTURES AND SOILS

This section outlines procedures used to remove or decontaminate hazardous waste and its residues and constituents from the Aqua Yard storage facility, containment area, dike, and associated equipment. The facility consists of an 8 feet by 32 feet concrete pad which was used to store up to fifty six, 55-gallon drums. A 6-inch high curb extends around the perimeter of the pad, and a 10 feet by 40 feet roof covers the pad. There are no tanks involved in the storage of hazardous waste at this facility. The procedures to be followed to decontaminate and close this facility are as follows:

1. Foundation, Ramp and Sump

a. At the time of acceptance of Closure Plan all waste materials will have been removed from the storage facility for proper disposal. Access to the site for decontamination should be unlimited.

b. The surface of the containment area and all structural components will be washed with a detergent solution. Scrub brushes and scrapers may be



required to remove some contaminants. Following the detergent, all surfaces will be washed using a pressure steam cleaner. All rinsate from the first wash will be collected in appropriate containers for disposal. Following the first wash, the area will be washed a second time with a detergent solution followed by a steam clean. The second rinsate will be collected in containers for appropriate disposal. The facility and equipment will be rinsed three times using clear water. The rinses will be collected for disposal. The final rinse will be collected separate from the rest of the cleaning solutions.

c. A sample of the final rinsate will be collected and analyzed in accordance with the procedures in Section 13 of this plan, Sample Collection and Analysis. If sample analysis indicates the rinsate is contaminated, as indicated by parameters in Section 13, decontamination procedures will be repeated, followed by further analysis of the rinsate.

d. The decontamination/analysis procedures will be repeated until the rinsate is found to be non-contaminated, as indicated by parameters in Section 13.

e. All rinsate waste will be collected using appropriate equipment such as squeegee, mops, pumps, etc. The material will be collected and sealed in appropriate DOT approved shipping containers for disposal. The amount of rinsate materials anticipated is less than 200 gallons. If the rinsate is found to be non-contaminated, it will be disposed in the Scott AFB sanitary sewerage system. If the material meets the requirements of a hazardous waste, it will be disposed through appropriate TSD facilities. A Waste Stream Permit will be obtained from IEPA for the disposal activity.

2. Soil

Soil will not be decontaminated on site. Contaminated soil identified through the sampling plan, Section 13, and the soil cleanup levels in Section 12, will be excavated and removed from Scott AFB to an appropriate TSD facility or special waste disposal operation, as appropriate. Soil excavation procedures are described in Section 14.

Section 12 - SOIL CLEANUP LEVELS (35 IAC 725.211 and 725.328)

Clean closure of the Aqua Yard storage facility requires removal of all wastes, leachate and soils contaminated with waste or leachate that pose a present or potential threat to human health or the environment. It is not reasonable to expect an area to be cleaned up beyond the natural surrounding background levels, therefore, this plan proposes to use background concentrations as the soil clean-up criteria.

Soil samples will be collected from a minimum 10 locations surrounding the Aqua Yard storage area, in locations not expected to be affected by any activities at the waste storage unit. If strata is found in the soil during boring, each strata will be sampled in order to compare background strata with actual conditions found at the waste site. The background soils will be analyzed for all constituents found in waste materials stored at the site over its life of operation. The concentrations measured in the background soils will be statistically compared to the concentrations measured in soil samples collected at the storage site. Concentrations found to be statistically greater than background will indicate contamination and require clean-up.



Section 13 - SAMPLING PLAN AND ANALYTICAL METHODS (35 IAC 725.211)

Closure of the Aqua Yard storage facility includes analysis of various materials for hazardous constituents in order to demonstrate clean closure. The storage facility is constructed on an impermeable concrete slab with curbed secondary containment. The opportunity for waste migration from the facility to the environment is minimal. The soil sampling will be minimal around the facility. Other items to be sampled during the implementation of this plan is the rinsates from decontamination operations, background soils, and groundwater if encountered during the soil boring.

1. Analytical Parameters

The objective of this closure plan is to clean close the facility to background conditions. The variety of materials stored at the facility over its operational life were reviewed for hazardous constituents. The information available on the materials is not specific enough to determine the exact makeup. For example, paint waste was determined to be ignitable, but the paint could have contained a variety of volatile and semi-volatile organics. The same could be true for waste oils and hydraulic fluids. The analytical parameters selected for this closure plan are listed in Table 6. These parameters should cover the wide range of materials stored at the facility.

Table 6
Analytical Parameters for Closure

| <u>SW 846 Method Options</u> | <u>Description</u> |
|--|------------------------|
| 8010,8015,8020,8240 | volatile organics |
| 8011,8030,8040,8060 8070,8100,8120,8250 8270 | semi-volatile organics |
| 6010 | EP Toxicity metals |

2. Soil Sample Locations:

A total of 10 soil sample locations will be used around the Aqua Yard storage facility. Since the probability of release to the environment from the unit is minimal, the sampling locations will be evenly placed around the unit, with 2 locations on each 8 foot side and 3 locations on each 32 foot side. (See diagram in Attachment 7)

The number of samples required was based upon establishing a grid system using Equation 2 provided by IEPA guidance. The calculated grid interval is 4.5 feet, which makes 10 grids locations. Overlaying this pattern on the containment structure allows a sample to be collected from each grid opening at a spot outside the containment structure.



3. Soil Sampling (depth) Increment:

The surficial geology in the Aqua Yard storage facility area consists of the Vandalia Till Member of the Glasford Formation consisting of sandy till with thin, lenticular bodies of silt, sand and gravel. It is calcareous, except where weathered, generally gray and moderately compact; it is commonly 20 to 25 feet thick. The geologic structure of the upper surface is expected to have a permeability of 0.6 to 2.0 inches per hour. Based on information available, the formation is expected to be fairly uniform with no significant stratification.

The release of contaminants to the environment from the waste management unit has a low potential, based on the type of containment and management history of the facility. Surface contamination is expected to be low or non-existent. The soil borings around the facility will be done to a depth of 20 feet using an auger. Samples will be collected using a split spoon sampler.

Soil samples will be collected on the following increments:

- a. Depth 0 to 2 feet: collect a sample at surface, 1 and 2 foot
- b. Depth 2 to 20 feet: collect a sample at 4, 6, 8, 10, 12, 14, 16, 18 and 20 foot

Duplicate samples will be collected at each sampling point in the boring so there will be two sets of samples per boring. Set Number 2 will be reserved for further analysis if needed. Set Number 1 will be used as an initial screening of the boring. Set Number 1 will be mixed together to provide a representative sample for the boring. The composite sample will be analyzed for the constituents identified in paragraph 1 above, with the exception of the volatile organics.

If the analysis finds constituents above the background limit, Set Number 2 will be analyzed. Analysis on Set Number 2 will involve analyzing each depth increment of the boring for the specific constituents identified in Set Number 1. This method will allow mapping depth of contamination while saving analytical cost.

Volatile organic analysis requires special handling. The samples cannot be composited when doing a volatile analysis. A sample will be collected from each boring at the 1, 2, 4 and 8 foot level for volatile organic analysis. The reasoning for this is that if a chemical were spilled, most of the volatile organics would come off quickly, in the upper layers of soil. The less volatile constituents have the possibility of migrating to deeper soils.

4. Background Sampling:

Background sampling will be necessary to establish the baseline clean-up levels for the closure. The background samples will be required for both soil in the area and the water used for the decontamination. Both will be used for comparison to samples collected during the operation.

The water used for decontamination will be sampled and analyzed for the constituents identified in paragraph 1 above. The analysis will be compared to the rinsate solutions collected following decontamination in order to determine if the area has been adequately cleaned.



Background soil samples will be collected at 10 locations surrounding the Aqua Yard storage facility, in locations having no expected impact from the waste management operation. (See Attachment 7) The samples will be collected in a manner similar to the samples around the facility as described in paragraph 3 above. Since the surficial geology indicates a uniform material, each boring will have one composite sample analysis, rather than looking at specific depths. The only variation will be if a specific strata is identified during the soil boring. In this instance, the strata will be analyzed separately from the rest of the boring.

The background soil samples will be statistically compared with the borings taken around the waste facility. The area will be considered clean closed when the comparison between background and the site samples show with a 95% confidence that the hazardous constituents measured in the Aqua Yard storage area are not higher than those in the background samples.

5. Quality Assurance:

Sampling methods, analytical methods and equipment will follow guidance in U.S. EPA SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods. All soil samples collected will be handled in accordance with 40 CFR Part 261, Appendix III and the soil volatile sampling procedures outlined in Attachment 8. Analysis will be accomplished using SW-846 methodology by a laboratory that is a participant in the EPA or IEPA Contract Lab Program. Trip blanks and field blanks, along with standard chain-of-custody procedures will be used to ensure the integrity of the sample handling.

An independent professional engineer will be used to review the closure plan, field work, analytical and sampling procedures, and will provide a certification of the clean closure. The engineer will be independent of the contractor performing the closure activity. Problem areas identified by the reviews will be immediately corrected to ensure the closure work remains on schedule.

Sampling handling procedures will be as follows:

a. Samples will be identified and labeled with the sample number, location, type, date and time collected, and the person collecting. The information will also be recorded in the field log book to document activities at the site.

b. Samples will be immediately placed on ice and maintained at 4 degrees Celcius for transport to the laboratory for analysis. Delivery to the laboratory will be within 12 hours of collection in order to meet analytical requirements for volatile materials.

c. A chain-of-custody form identifying the samples will be filled out as the samples are collected. The form will be transported with the samples and serve as the control document.

Specifics on the contractor performing the operation, independent engineer providing certification, and analytical laboratory and methodology used for the analysis will be provided when a contract is established.



Section 14 - CONTAMINATED SOIL REMOVAL

In order to achieve clean closure at the Aqua Yard storage facility, all contaminated soils will be removed from the site. The soil will be identified through the analytical procedures described previously. They will be excavated and hauled to an appropriate disposal facility, as determined by the waste characteristics.

Excavation limits will be established through the analytical procedures. The soil will be excavated to a depth one sample increment below the contaminated level. As an example, if the analysis measures concentrations exceeding allowable limits at the 4 foot level, excavation will be performed down to 6 foot, the next level analyzed.

Contaminated soil will require a Special Waste Stream permit for disposal. This permit will be obtained after the type of waste is identified. Therefore, there may be a lag time between excavation and actual removal from the site for disposal. Contaminated soils will be excavated and placed in appropriate storage containers while awaiting transport to the disposal facility. For small quantities, 55-gallon drums will be used to hold the soil. For larger quantities, dumpsters or roll-off storage boxes, lined with polyethylene will be used. Containers will be sealed at the end of each work day, and will be appropriately labeled. They will be maintained inside a secured fence area until transported from Scott AFB for disposal. The schedule for closure does take into account a lag time for obtaining the Special Waste Stream Permit. The waste material should be removed from Scott AFB within 90 days of generating it. If problems arise, a special exemption request will be filed with the State of Illinois to obtain a time extension to the 90 day limit.

Soil quantities of less than 5 cubic yards will be removed through the use of picks and shovels. The soil will be placed in the drums for storage and transport. Soil quantities greater than 5 cubic yards will be excavated using appropriate equipment such as a backhoe and/or front-end loader. The soil will be placed in the polyethylene lined dumpsters or boxes for storage and disposal. Manifests and placards will be used as per EPA and DOT regulations. The soil will be transported to an approved disposal facility following receipt of the Special Waste Stream Permit.

Section 15 - DISPOSAL OF HAZARDOUS WASTE AND CLEANUP RESIDUES

Upon formal notification to proceed with facility closure all hazardous waste will have been removed from the site. Any hazardous waste generated as a result of the closure operation will be disposed of under contractual agreement to a state and/or EPA approved TSD facility or recycling site. If this process cannot be accomplished within the allotted time for closure, the hazardous waste will be transferred to an operational DRMO with a valid TSD permit.

Special waste, as defined by the State of Illinois, will be disposed of at an appropriate state approved facility or recycling center. The contaminated soil, if any, is anticipated to fall into the special waste category.

All spent cleaning agents, rinsate, disposable cleaning supplies such as brushes, towels, suits and gloves used for decontamination and sampling will be placed into drums for storage and disposal. The materials will be treated



as either hazardous or special waste, depending on the original use in the closure operation. Contaminated soils will be handled as described in Section 14 above. All waste materials will be properly labeled and manifested for disposal.

Once the closure waste materials are containerized, they can be readied for disposal. Scott AFB will review options for disposing the waste through recycling, incineration, chemical, physical or biological treatment. These options will be looked at in order to meet the land disposal restrictions mandated by the Hazardous and Solid Waste Amendments of 1984. After the appropriate disposal option is selected, the disposal facility will obtain the Waste Stream Permit from the IEPA. The waste will be disposed of after the permit is received.

Section 16 - DISPOSAL UNIT CLOSURES

The Aqua Yard storage facility is a container storage unit. No disposal has occurred at the site. Clean closure will be accomplished through the removal of all hazardous waste and contaminated materials from the site.

Section 17 - DESCRIPTION OF EQUIPMENT CLEANING

All equipment used for decontamination, sampling and removal of contaminated soil will be cleaned with detergent solution, steam cleaned, and triple rinsed. The rinsate will be collected and analyzed to check for residual contamination. If the rinsate analysis is found to be non-contaminated in comparison to background analysis on the clear water, the equipment will be declared clean and ready for reuse. If the rinsate is contaminated, the decontamination process will be repeated until an appropriate level of cleanliness is obtained.

An equipment decontamination area will be constructed using polyethylene sheeting and sandbags. The area will be designed so it slopes to one end for collection of rinsate materials for containerization, sampling and disposal. All materials will be collected in drums using squeegees, mops and pumps.

All tools used for decontaminating equipment will be collected for appropriate disposal following completion of the closure operation. The materials will be disposed of using procedures appropriate to the level of contamination. Hazardous waste will be sent to appropriate TSD facilities. Special waste will be disposed at an approved facility. Non-contaminated materials will be disposed at landfills. Non-contaminated liquids will be disposed through the Scott AFB sewage treatment facility.

Section 18 - SIGNATORY REQUIREMENTS (35 IAC 725.218(h))

The Closure Plan Certification, with appropriate signatures is in Attachment 9.

Section 19 - CERTIFICATIONS AND REPORTS (35 IAC 702.126 and 725.215)

The Certification of Final Closure with appropriate signatures, including an independent Professional Engineer, is in Attachment 10. The certification will be provided with the final closure report within 60 days of completing the closure operation.



A Final Closure Report will be submitted in accordance with 35 IAC 725.215, amended March 24, 1987 (PCB R86-28), with the closure certification to document the operation. The report will include the following information:

- a. The volume of waste and waste residue removed, including the waste (residue) resulting from decontamination activities
- b. A description of the method of waste handling and transport
- c. Waste manifest numbers or copies of manifests from removal of waste and waste residue
- d. A description of the sampling and analytical methods used, including sample preservation and chain-of-custody methods
- e. A chronological summary of closure activities and the costs involved
- f. Color photo documentation of closure showing the unit before, during and after closure
- g. Tests performed, methods and results

In accordance with 35 IAC 725.240(c), the Federal Government is exempt from the requirements for financial assurance. Therefore a release from the financial assurance instruments is not necessary.

Section 20 - STATUS OF FACILITY AFTER CLOSURE

Following final clean closure of the Aqua Yard storage facility, the area will be used to store hazardous waste as a generator, less than 90 days. Scott AFB will continue to generate hazardous waste at a rate of more than 1,000 kg/month and will require a central accumulation point for the temporary storage while awaiting pickup for disposal.

Scott AFB will generate and store more than 1,000 kg/month for less than 90 days.

Section 21 - PART A MODIFICATION AND WITHDRAWALS (35 IAC 703.181)

This plan calls for final closure of the Aqua Yard storage facility. The original Part A application included both the Aqua Yard and Building 540. Building 540 is used exclusively for the storage of PCBs and PCB equipment. Building 540 is exempt from requirements under RCRA and should be cleared from the Part A. At the completion of the closure activity a letter will be submitted requesting withdrawal of the Part A application, and the re-designation of Scott AFB as strictly a generator with less than 90 day storage.

Section 22 - POST-CLOSURE CARE (35 IAC 703.121(b) and 725.218)

This plan calls for the complete final clean closure of the Aqua Yard storage facility. No hazardous waste will remain in the unit and no contaminated soil will remain. No post-closure care is necessary.



Section 23 - LOCATION DOCUMENTATION FOR DISPOSAL UNITS

The Aqua Yard storage facility was used exclusively for container storage. No waste was disposed at the site and no waste will remain. A survey plat and notice in deed is not required.



| | | | | | |
|--------------------------------------|--|--|--|--|--|
| FORM 1 GENERAL | | U.S. ENVIRONMENTAL PROTECTION AGENCY GENERAL INFORMATION <i>Consolidated Permits Program</i> (Read the "General Instructions" before starting.) | | I. EPA I.D. NUMBER F I L 7 5 7 0 0 2 4 1 7 7 | |
| II. FACILITY NAME | | PLEASE PLACE LABEL IN THIS SPACE | | GENERAL INSTRUCTIONS If a preprinted label has been provided, fill in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete items I, III, V, and VI (except V-B which must be completed regardless). Complete items II if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected. | |
| III. FACILITY MAILING ADDRESS | | | | | |
| VI. FACILITY LOCATION | | | | | |

| SPECIFIC QUESTIONS | | MARK "X" | | SPECIFIC QUESTIONS | | MARK "X" | |
|--|--|----------|---|--|--|----------|--|
| A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A) | | X | | B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B) | | X | |
| C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C) | | X | | D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D) | | X | |
| E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3) | | X | X | F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4) | | X | |
| G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4) | | X | | H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4) | | X | |
| I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5) | | X | | J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5) | | X | |

| | |
|------------------------------|--|
| III. NAME OF FACILITY | |
| 1 SKIP SCOTT AIR FORCE BASE | |

| | |
|---|--|
| IV. FACILITY CONTACT | |
| 2 EVERETT MARK CH ENGRG & ENVMTL 618 256 4764 | |

| | |
|------------------------------------|--|
| V. FACILITY MAILING ADDRESS | |
| 3 375 ABG/DEE | |
| 4 SCOTT AIR FORCE BASE IL 62225 | |

| | |
|---------------------------------|--|
| VI. FACILITY LOCATION | |
| 5 AQUA YARD & BUILDING 540 | |
| 6 ST CLAIR | |
| 7 SCOTT AIR FORCE BASE IL 62225 | |

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VII. SIC CODES (4-digit, in order of priority)

| | | | | | | | |
|---|--|--|--|----------------|--|--|--|
| A. FIRST | | | | B. SECOND | | | |
| (specify) 7 0 7 1 1 National Security | | | | (specify) 7 | | | |
| C. THIRD | | | | D. FOURTH | | | |
| (specify) 7 4 2 1 Military Air Transport Service | | | | (specify) 7 | | | |

VIII. OPERATOR INFORMATION

| | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|
| A. NAME | | | | | | | | | | B. Is the name listed in Item VIII-A also the owner? | |
| 8 SCOTT AIR FORCE BASE | | | | | | | | | | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | |
| C. STATUS OF OPERATOR (Enter the appropriate letter into the appropriate box. If "Other," specify.) | | | | | | | | | | D. PHONE (Area Code & No.) | |
| F - FEDERAL S - STATE P - PRIVATE M - PUBLIC (other than federal or state) O - OTHER (specify) | | | | | | | | | | F (specify) A 6 1 8 2 5 6 4 7 6 4 | |
| E. STREET OR P.O. BOX | | | | | | | | | | | |
| 3 7 5 A B G / D E D | | | | | | | | | | | |
| F. CITY OR TOWN | | | | | | | | | | G. STATE & H. ZIP CODE | |
| 8 SCOTT AIR FORCE BASE | | | | | | | | | | I L 6 2 2 2 5 | |
| | | | | | | | | | | IX. INDIAN LAND Is the facility located on Indian lands? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | |

X. EXISTING ENVIRONMENTAL PERMITS

| | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|
| A. APDES (Discharge to Surface Water) | | | | | | | | | | D. PSD (Air Emissions from Fossil Fuel Sources) | | | | | | | | | |
| 8 N I L 0 0 2 6 8 5 9 | | | | | | | | | | 8 P | | | | | | | | | |
| B. UIC (Underground Injection of Fluids) | | | | | | | | | | E. OTHER (Specify) | | | | | | | | | |
| 9 U | | | | | | | | | | 9 7 8 0 3 0 0 4 3 (specify) Oil Fired Boilers | | | | | | | | | |
| C. RCRA (Hazardous Wastes) | | | | | | | | | | F. OTHER (Specify) | | | | | | | | | |
| 9 | | | | | | | | | | 9 8 2 1 1 0 0 5 0 (specify) Pathological Waste Incinerator | | | | | | | | | |

XI. MAP

Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers and other surface water bodies in the map area. See instructions for precise requirements.

XII. NATURE OF BUSINESS (provide a brief description)

Scott AFB is the Headquarters for the Military Airlift Command and Air Force Communications Command. The 375 Aeromedical Airlift Wing is the operational flying unit based at Scott AFB. As a result, the base conducts a variety of military missions as well as conducting aircraft flights, maintenance, supply, transportation, and other base support functions.

XIII. CERTIFICATION (see Instructions)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.


| | | | | | |
|--|--|-----------------|--|----------------|--|
| A. OFFICIAL TITLE (type or print) | | B. SIGNATURE | | C. DATE SIGNED | |
| RK D. EVERETT Chief, Engrg & Envmtl Planning Br | | Mark D. Everett | | 16 Dec 85 | |

COMMENTS FOR OFFICIAL USE ONLY

| | |
|---|--|
| C | |
|---|--|

Please print or type in the unshaded areas only
(fill-in areas are spaced for elite type, i.e., 12 characters/inch).

Form Approved OMB No. 5800004

| | | | |
|----------------------------------|--|---|--|
| FORM 3 RCRA |  EPA | U.S. ENVIRONMENTAL PROTECTION AGENCY HAZARDOUS WASTE PERMIT APPLICATION Consolidated Permits Program (This information is required under Section 3005 of RCRA.) | I. EPA I.D. NUMBER F I L 7 5 7 0 0 2 4 1 7 7 |
| II. FIRST OR REVISED APPLICATION | | COMMENTS | |
| DATE RECEIVED (yr., mo., & day) | | | |

Place an "X" in the appropriate box in A or B below (mark one box only) to indicate whether this is the first application you are submitting for your facility or revised application. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your facility's EPA I.D. Number in Item I above.

| | | | | | |
|---|-----|---|-----|-----|-----|
| A. FIRST APPLICATION (place an "X" below and provide the appropriate date) | | 2. NEW FACILITY (Complete item below.) | | | |
| <input checked="" type="checkbox"/> 1. EXISTING FACILITY (See instructions for definition of "existing" facility. Complete item below.) | | FOR NEW FACILITY: PROVIDE THE DATE (yr., mo., & day) OF OPERATION BEGAN OR IS EXPECTED TO BEGIN | | | |
| YR. | MO. | DAY | YR. | MO. | DAY |
| 8 | 0 | 14 | | | |

| | | | |
|---|--|-------------------------------|--|
| B. REVISED APPLICATION (place an "X" below and complete item I above) | | 2. FACILITY HAS A RCRA PERMIT | |
| <input type="checkbox"/> 1. FACILITY HAS INTERIM STATUS | | | |

III. PROCESSES - CODES AND DESIGN CAPACITIES

A. PROCESS CODE - Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code(s) in the space provided. If a process will be used that is not included in the list of codes below, then describe the process (including its design capacity) in the space provided on this form (Item III-C).

B. PROCESS DESIGN CAPACITY - For each code entered in column A enter the capacity of the process.
1. AMOUNT - Enter the amount.
2. UNIT OF MEASURE - For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.

| PROCESS | PROCESS CODE | APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY | PROCESS | PROCESS CODE | APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY |
|--------------------------------|----------------------|--|---|-----------------|--|
| Storage: | | | Treatment: | | |
| CONTAINER (barrel, drum, etc.) | S01 | GALLONS OR LITERS | TANK | T01 | GALLONS PER DAY OR LITERS PER DAY |
| TANK | S02 | GALLONS OR LITERS | SURFACE IMPOUNDMENT | T02 | GALLONS PER DAY OR LITERS PER DAY |
| WASTE PILE | S03 | CUBIC YARDS OR CUBIC METERS | INCINERATOR | T03 | TONS PER HOUR OR METRIC TONS PER HOUR |
| SURFACE IMPOUNDMENT | S04 | GALLONS OR LITERS | OTHER (Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided; Item III-C.) | T04 | GALLONS PER DAY OR LITERS PER DAY |
| Disposal: | | | | | |
| INJECTION WELL | D09 | GALLONS OR LITERS | | | |
| LANDFILL | D00 | ACRE-Feet (the volume that would cover one acre to a depth of one foot) OR HECTARE-METER | | | |
| LAND APPLICATION | D01 | ACRES OR HECTARES | | | |
| OCEAN DISPOSAL | D02 | GALLONS PER DAY OR LITERS PER DAY | | | |
| SURFACE IMPOUNDMENT | D03 | GALLONS OR LITERS | | | |
| UNIT OF MEASURE | UNIT OF MEASURE CODE | UNIT OF MEASURE | UNIT OF MEASURE | UNIT OF MEASURE | UNIT OF MEASURE CODE |
| GALLONS | G | LITERS PER DAY | V | ACRE-Feet | A |
| LITERS | L | TONS PER HOUR | D | HECTARE-METER | F |
| CUBIC YARDS | Y | METRIC TONS PER HOUR | W | ACRES | B |
| CUBIC METERS | C | GALLONS PER HOUR | E | HECTARES | Q |
| GALLONS PER DAY | U | LITERS PER HOUR | H | | |

EXAMPLE FOR COMPLETING ITEM III (shown in line numbers X-1 and X-2 below): A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

| | | | | | | | | | |
|-------------|-----------------------------------|----------------------------|---------------------------------|-----------------------|-------------|-----------------------------------|----------------------------|---------------------------------|-----------------------|
| C | | DUP | | T/A | | C | | I | |
| LINE NUMBER | A. PROCESS CODE (from list above) | B. PROCESS DESIGN CAPACITY | | FOR OFFICIAL USE ONLY | LINE NUMBER | A. PROCESS CODE (from list above) | B. PROCESS DESIGN CAPACITY | | FOR OFFICIAL USE ONLY |
| | | 1. AMOUNT (specify) | 2. UNIT OF MEASURE (enter code) | | | | 1. AMOUNT | 2. UNIT OF MEASURE (enter code) | |
| X-1 | S 0 2 | 600 | G | | 5 | | | | |
| X-2 | T 0 3 | 20 | E | | 6 | | | | |
| 1 | S 0 1 | 2640 | G | | 7 | | | | |
| 2 | S 0 1 | 4000 | G | | 8 | | | | |
| 3 | | | | | 9 | | | | |
| 4 | | | | | 10 | | | | |



I. PROCESSES (continued)

SPACE FOR ADDITIONAL PROCESS CODES OR FOR DESCRIBING OTHER PROCESSES (code "T04"). FOR EACH PROCESS ENTERED HERE INCLUDE DESIGN CAPACITY.

II. DESCRIPTION OF HAZARDOUS WASTES

EPA HAZARDOUS WASTE NUMBER — Enter the four-digit number from 40 CFR, Subpart D for each listed hazardous waste you will handle. If you handle hazardous wastes which are not listed in 40 CFR, Subpart D, enter the four-digit number(s) from 40 CFR, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

ESTIMATED ANNUAL QUANTITY — For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.

UNIT OF MEASURE — For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate code are:

| ENGLISH UNIT OF MEASURE | CODE | METRIC UNIT OF MEASURE | CODE |
|-------------------------|------|------------------------|------|
| POUNDS | P | KILOGRAMS | K |
| TONS | T | METRIC TONS | M |

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

PROCESSES

1. PROCESS CODES:

For listed hazardous waste: For each listed hazardous waste entered in column A select the code(s) from the list of process codes contained in Item III to indicate how the waste will be stored, treated, and/or disposed of at the facility.

For non-listed hazardous waste: For each characteristic or toxic contaminant entered in column A, select the code(s) from the list of process codes contained in Item III to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

Note: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of Item IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code(s).

2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in the space provided on the form.

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER — Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B, C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
2. In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.
3. Repeat step 2 for each other EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING ITEM IV (shown in line numbers X-1, X-2, X-3, and X-4 below) — A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

| LINE NO. | A. EPA HAZARD. WASTE NO (enter code) | | | | B. ESTIMATED ANNUAL QUANTITY OF WASTE | C. UNIT OF MEASURE (enter code) | D. PROCESSES | | | | | | | |
|----------|---|---|---|---|---------------------------------------|------------------------------------|--|---|---|---|---|---|--|---------------------|
| | 1. PROCESS CODES (enter) | | | | | | 2. PROCESS DESCRIPTION (If a code is not entered in D(1)) | | | | | | | |
| X-1 | 0 | 5 | 4 | | 900 | P | T | 0 | 3 | D | 8 | 0 | | |
| X-2 | 0 | 0 | 2 | | 400 | P | T | 0 | 3 | D | 8 | 0 | | |
| X-3 | D | 0 | 0 | 1 | 100 | P | T | 0 | 3 | D | 8 | 0 | | |
| X-4 | D | 0 | 0 | 2 | | | | | | | | | | included with above |

Continued from page 2.

NOTE: Photocopy this page before completing if you have more than 26 wastes to list.

Form Approved OMB No. 158-S80004

| EPA I.D. NUMBER (enter from page 1) | | | | | | | | | | | | | FOR OFFICIAL USE ONLY | | | | | | | | | | | | | | | | |
|--|---------------------------------------|---|---|---|---------------------------------------|---|---|---|---------------------------------|---|--------------------------|---|---|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|
| <div style="display: flex; justify-content: space-between;"> 1 2 3 4 5 6 7 8 9 10 11 12 T/A/C </div> <div style="display: flex; justify-content: space-between;"> L 7 5 7 0 0 2 4 1 7 7 1 </div> | | | | | | | | | | | | | <div style="display: flex; justify-content: space-between;"> 13 14 15 16 17 18 19 20 21 22 23 24 T/A/C </div> <div style="display: flex; justify-content: space-between;"> W DUP 2 DUP </div> | | | | | | | | | | | | | | | | |
| DESCRIPTION OF HAZARDOUS WASTES (continued) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LINE NO. | A. EPA HAZARD. WASTE NO. (enter code) | | | | B. ESTIMATED ANNUAL QUANTITY OF WASTE | | | | C. UNIT OF MEASURE (enter code) | | D. PROCESSES | | | | | | | | | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 1. PROCESS CODES (enter) | | | | | | | | | | 2. PROCESS DESCRIPTION (if a code is not entered in D(1)) | | | | | | | | |
| 1 | D | 0 | 0 | 6 | 2700 | | | | P | | S | 0 | 1 | | | | | | | | | | | | | | | | |
| 2 | F | 0 | 0 | 1 | 2000 | | | | P | | S | 0 | 1 | | | | | | | | | | | | | | | | |
| 3 | F | 0 | 0 | 2 | 300 | | | | P | | S | 0 | 1 | | | | | | | | | | | | | | | | |
| 4 | F | 0 | 0 | 3 | 1500 | | | | P | | S | 0 | 1 | | | | | | | | | | | | | | | | |
| 5 | F | 0 | 0 | 5 | 1500 | | | | P | | S | 0 | 1 | | | | | | | | | | | | | | | | |
| 6 | F | 0 | 0 | 7 | 650 | | | | P | | S | 0 | 1 | | | | | | | | | | | | | | | | |
| 7 | F | 0 | 0 | 8 | 100 | | | | P | | S | 0 | 1 | | | | | | | | | | | | | | | | |
| 8 | F | 0 | 0 | 9 | 600 | | | | P | | S | 0 | 1 | | | | | | | | | | | | | | | | |
| 9 | U | 0 | 0 | 2 | 400 | | | | P | | S | 0 | 1 | | | | | | | | | | | | | | | | |
| 10 | U | 0 | 1 | 9 | 400 | | | | P | | S | 0 | 1 | | | | | | | | | | | | | | | | |
| | U | 0 | 3 | 6 | 150 | | | | P | | S | 0 | 1 | | | | | | | | | | | | | | | | |
| 12 | U | 0 | 3 | 7 | 200 | | | | P | | S | 0 | 1 | | | | | | | | | | | | | | | | |
| 13 | U | 0 | 8 | 8 | 150 | | | | P | | S | 0 | 1 | | | | | | | | | | | | | | | | |
| 14 | U | 1 | 8 | 8 | 150 | | | | P | | S | 0 | 1 | | | | | | | | | | | | | | | | |
| 15 | U | 2 | 2 | 0 | 800 | | | | P | | S | 0 | 1 | | | | | | | | | | | | | | | | |
| 16 | U | 2 | 2 | 6 | 500 | | | | P | | S | 0 | 1 | | | | | | | | | | | | | | | | |
| 17 | U | 2 | 3 | 9 | 150 | | | | P | | S | 0 | 1 | | | | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 21 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



IV. DESCRIPTION OF HAZARDOUS WASTES (continued)

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE 3.

EPA I.D. NO. (enter from page 1)

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F | I | L | 7 | 5 | 7 | 0 | 0 | 2 | 4 | 1 | 7 | 7 | 6 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

V. FACILITY DRAWING

All existing facilities must include in the space provided on page 5 a scale drawing of the facility (see instructions for more detail).

VI. PHOTOGRAPHS

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).

FACILITY GEOGRAPHIC LOCATION

LATITUDE (degrees, minutes, & seconds)

LONGITUDE (degrees, minutes, & seconds)

| | | | | | |
|---|---|---|---|---|---|
| 3 | 8 | 3 | 2 | 0 | 2 |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| 8 | 9 | 5 | 1 | 3 | 3 |
|---|---|---|---|---|---|

VIII. FACILITY OWNER

☐ A. If the facility owner is also the facility operator as listed in Section VIII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

B. If the facility owner is not the facility operator as listed in Section VIII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER

2. PHONE NO. (area code & no.)

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|--|--|--|--|--|--|--|--|--|-----------------|--|--|--|--|--|--|--|--|--|--------|--|--|--|--|--|--|--|--|--|-------------|--|--|--|--|--|--|--|--|--|
| 3. STREET OR P.O. BOX | | | | | | | | | | 4. CITY OR TOWN | | | | | | | | | | 5. ST. | | | | | | | | | | 6. ZIP CODE | | | | | | | | | |
|-----------------------|--|--|--|--|--|--|--|--|--|-----------------|--|--|--|--|--|--|--|--|--|--------|--|--|--|--|--|--|--|--|--|-------------|--|--|--|--|--|--|--|--|--|

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|--|--|--|--|--|--|--|--|--|-----------------|--|--|--|--|--|--|--|--|--|--------|--|--|--|--|--|--|--|--|--|-------------|--|--|--|--|--|--|--|--|--|
| 3. STREET OR P.O. BOX | | | | | | | | | | 4. CITY OR TOWN | | | | | | | | | | 5. ST. | | | | | | | | | | 6. ZIP CODE | | | | | | | | | |
|-----------------------|--|--|--|--|--|--|--|--|--|-----------------|--|--|--|--|--|--|--|--|--|--------|--|--|--|--|--|--|--|--|--|-------------|--|--|--|--|--|--|--|--|--|

IX. OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type)

EDWARD A. GLOWATSKI, Col, USAF
Base Commander

B. SIGNATURE

Edward A. Glowatski

C. DATE SIGNED

16 Dec 1985

X. OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type)

FLOYD A. ASHDOWN, Col, USAF
Base Civil Engineer



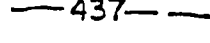

B. SIGNATURE

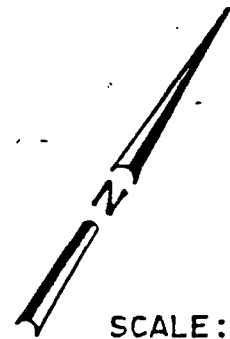
Floyd A. Ashdown

C. DATE SIGNED

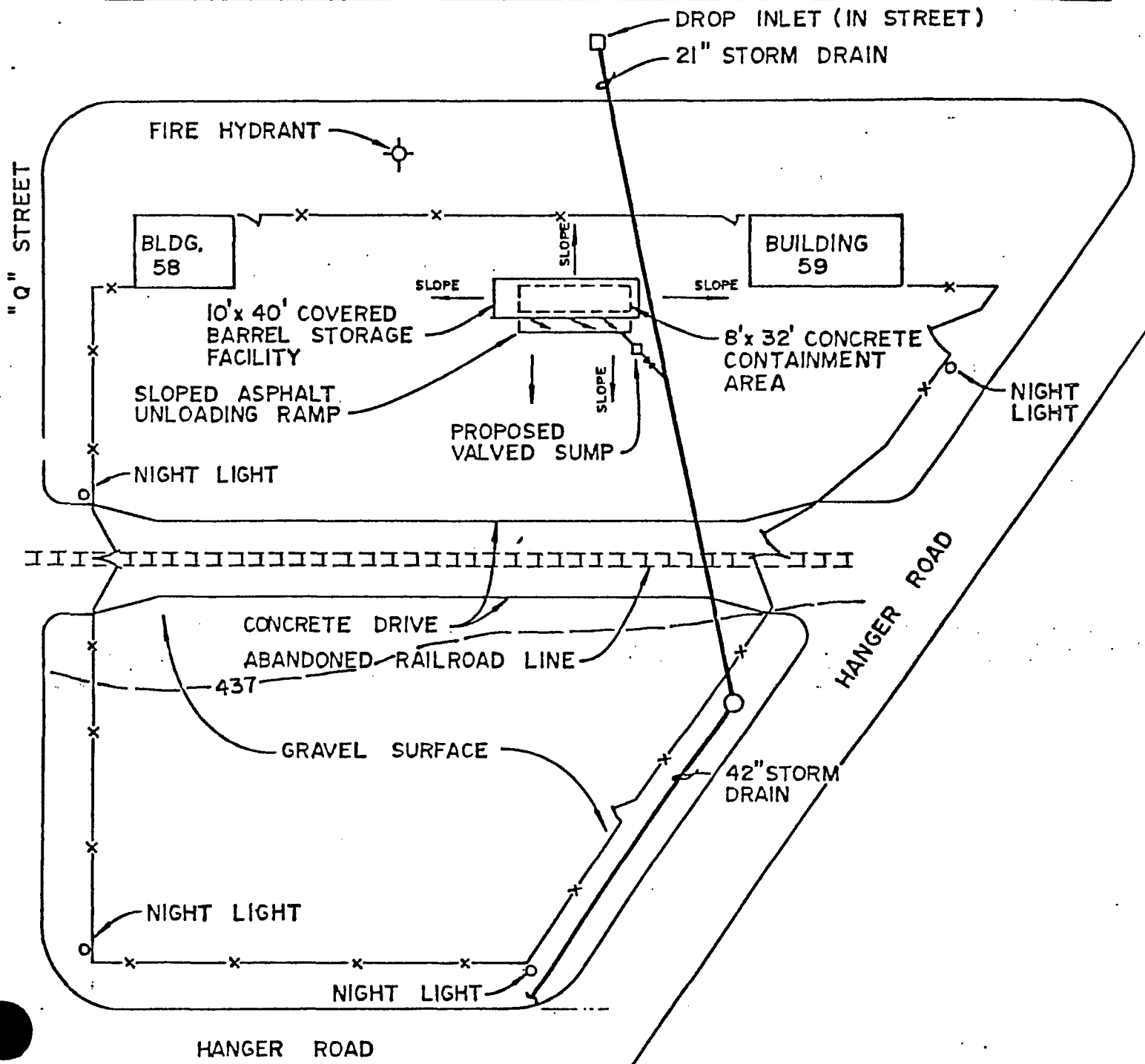
16 DEC 1985

LEGEND:

-  PEDESTRIAN GATE
-  VEHICULAR GATE
-  437 — EXISTING CONTOUR
(FEET ABOVE SEA LEVEL)
-  —x—x— CHAIN LINK FENCE

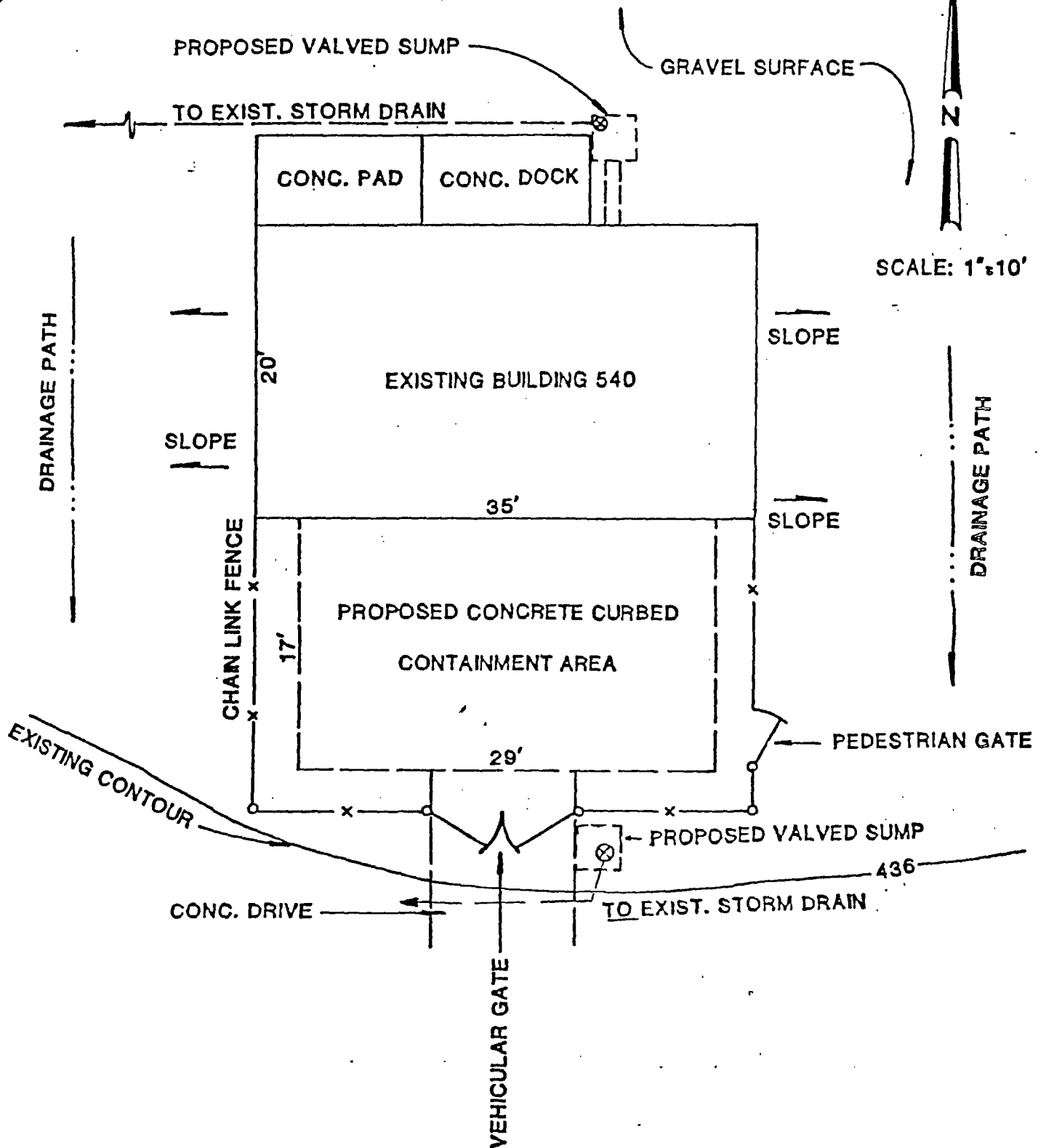


SCALE: 1" = 40'



SITE PLAN
AQUA STORAGE YARD



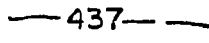
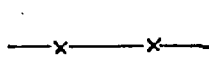


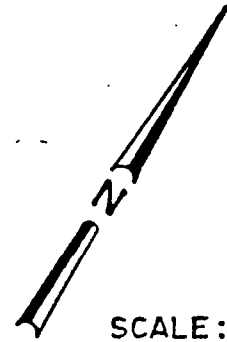


SITE PLAN
BUILDING 540 & PROPOSED ADDITION

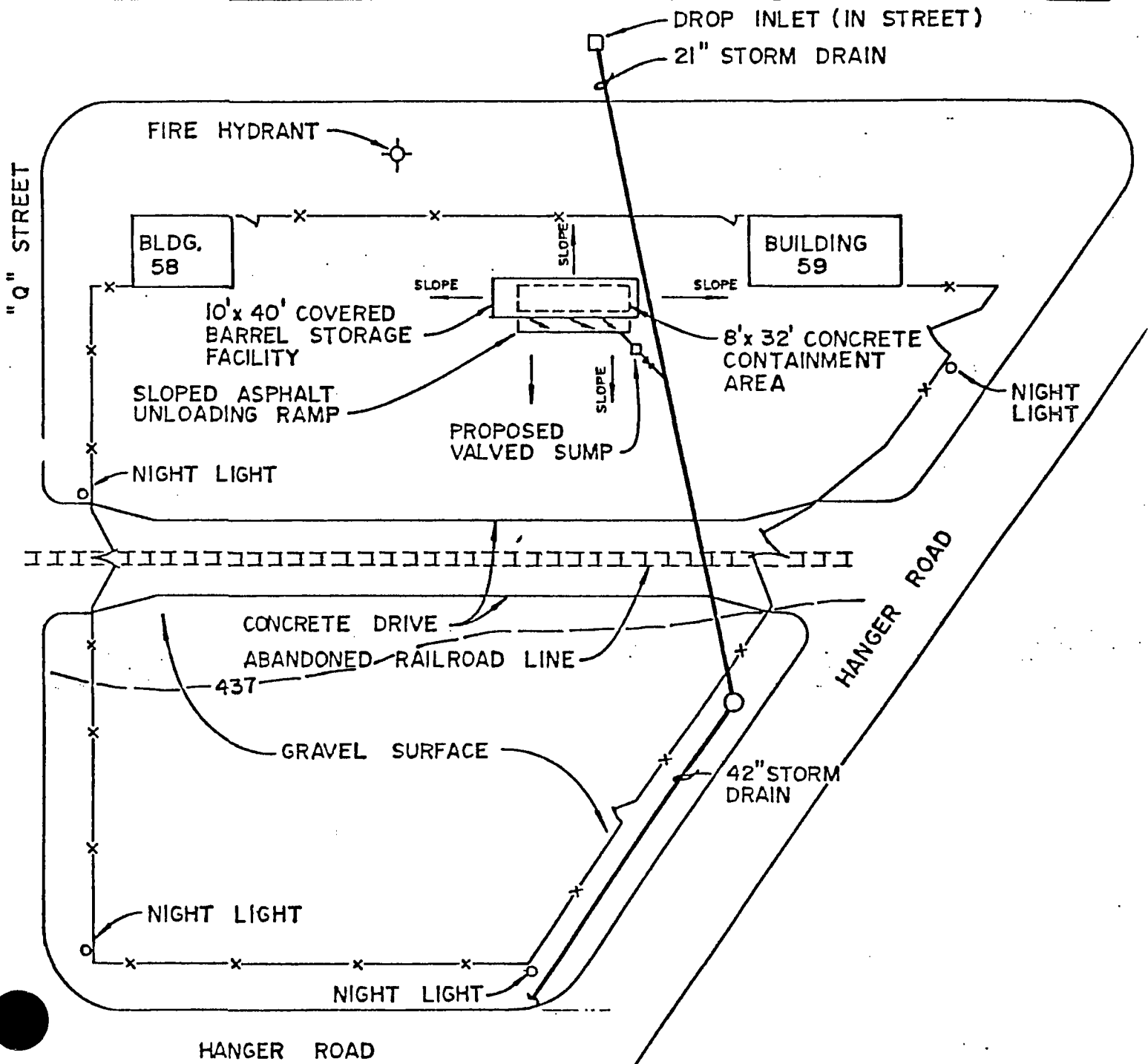


LEGEND:

-  PEDESTRIAN GATE
-  VEHICULAR GATE
-  437— EXISTING CONTOUR
(FEET ABOVE SEA LEVEL)
-  —x—x— CHAIN LINK FENCE



SCALE: 1" = 40'




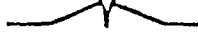
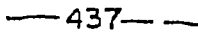

SITE PLAN
AQUA STORAGE YARD

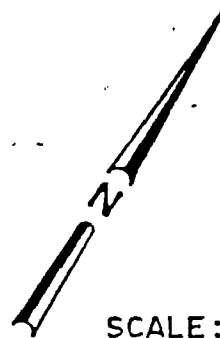
ATTACHMENT 6

UNDERGROUND STORAGE TANKS IN AQUA YARD

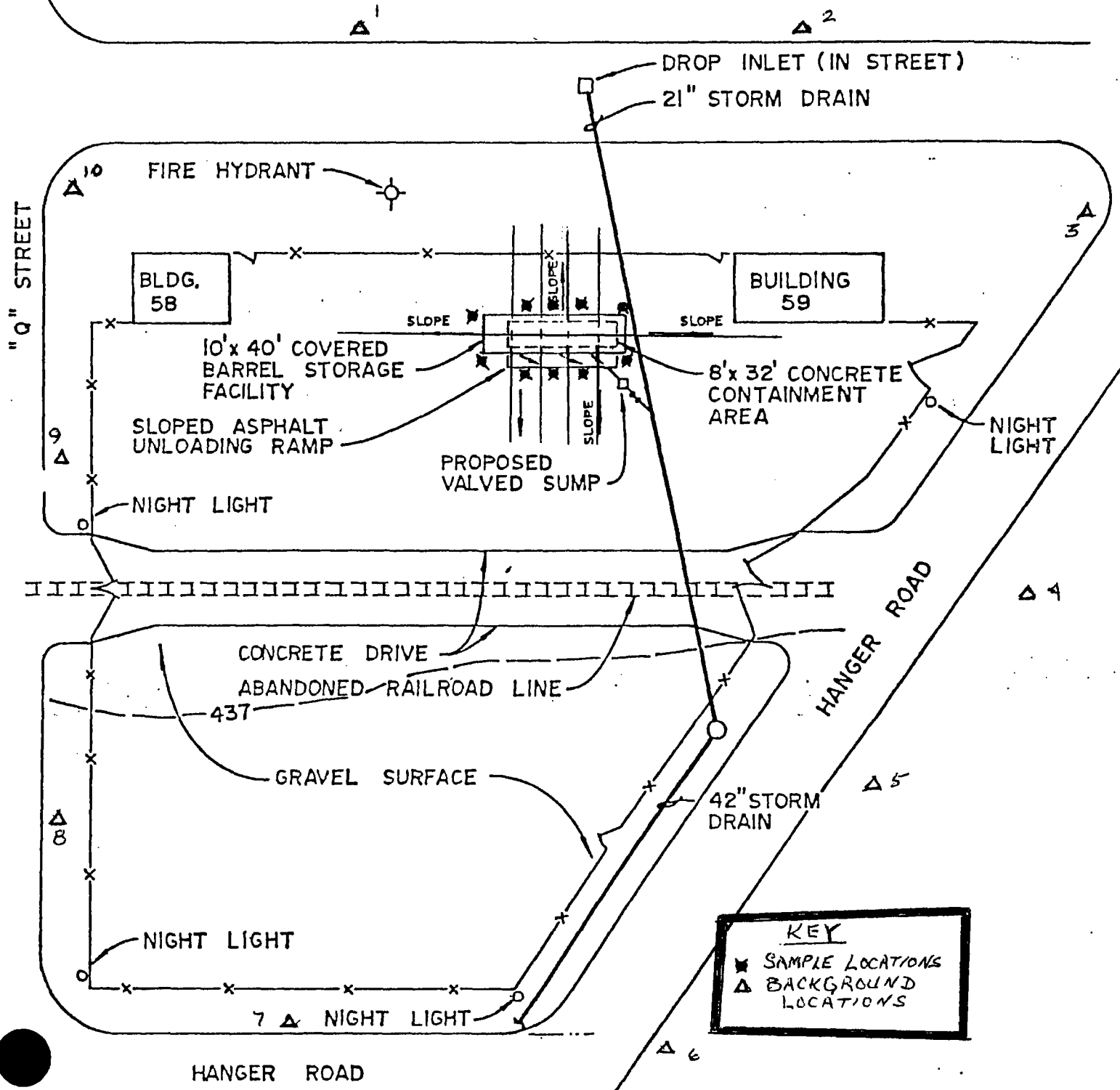


LEGEND:

-  PEDESTRIAN GATE
-  VEHICULAR GATE
-  437 — EXISTING CONTOUR
(FEET ABOVE SEA LEVEL)
-  —x—x— CHAIN LINK FENCE



SCALE: 1" = 40'



KEY
 ★ SAMPLE LOCATIONS
 ▲ BACKGROUND LOCATIONS

SITE PLAN

SOIL SAMPLE LOCATIONS

ATTACHMENT 7





ATTACHMENT 8

Soil Volatile Sampling Procedures

Procedure:

A. PREPARATION AND DECONTAMINATION OF SOIL SAMPLER (i.e. STAINLESS STEEL, BRASS, BRONZE, COPPER, etc.). An example of these samplers would be a shelby tube, split-barrel sampler with metal tube inserts or california sampler. These are only examples there maybe more types available. Also, the sample tube must be at least six inches long.

- *1. Wash tubing or sampler with hot water and a nonfoaming detergent.
2. Rinse with hot water.
- *3. Rinse with a solvent, such as hexane or acetone.
4. Rinse with very hot water to drive off solvent.
5. Rinse with deionized distilled water.
6. Air Dry
7. Store the sampler in aluminum foil until ready for use.
- *Consult the laboratory for specific recommendations.

B. SOIL SAMPLING FOR VOLATILE ORGANICS

1. Using a properly decontaminated sampler (refer to preparation and decontamination instructions), push or drive the sampler to obtain a representative soil sample.
2. DO NOT remove sample from sample tube in the field. The laboratory should remove the sample from the sampling tube.
3. Immediately add clay or other cohesive material (i.e. wetted bentonite) to the ends of the sample to eliminate head space, if necessary.
4. Cover both ends of the sampler with aluminum foil. If possible, cover the aluminum foil with a cap.
5. Put the sample in storage at 4 degrees centigrade immediately.
6. Transport the samples to the laboratory as soon as possible. Most laboratories require delivery within 24 hours of sampling.

NOTE:

Soil samples which will be tested for volatile organic constituents cannot be composited because of the volatilization which would result from any compositing method.

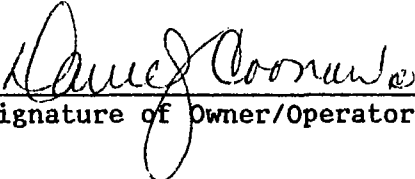


Closure Plan
Certification Statement

I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

ILD7570024177
USEPA ID Number

Scott Air Force Base/Aqua Yard
Facility Name


Signature of Owner/Operator

DANIEL J. COONAN III, Colonel, USAF
Commander
Name and Title

6 Mar 91
Date



Closure Certification Statement

The hazardous waste management unit at the facility described in this document has been closed in accordance with the specifications in the approved closure plan. I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If this is the closure of a unit which is subject to post-closure care requirements, the Owner/Operator hereby certifies that he has recorded the notation specified in 35 Ill. Adm. Code, Section 725.219(b)(1) as amended March 24, 1987.

ILD7570024177
USEPA ID Number

Scott Air Force Base/Aqua Yard
Facility Name

Signature of Owner/Operator

DANIEL J. COONAN III, Colonel, USAF
Commander
Name and Title

Signature of Registered P.E.

Name of Registered P.E. and Illinois
Registration Number

Date



CERTIFICATION REGARDING POTENTIAL RELEASES FROM
SOLID WASTE MANAGEMENT UNITS
(CLOSURE PLAN REVIEW)

FACILITY NAME: Scott Air Force Base

EPA I.D. NUMBER: ILD570024177

LOCATION CITY: Scott Air Force Base

STATE: Illinois

1. Are there any of the following solid waste management units (existing or closed) at your facility? NOTE - DO NOT INCLUDE HAZARDOUS WASTE UNITS CURRENTLY SHOWN IN YOUR PART A APPLICATION AND IN YOUR CLOSURE PLAN.

| | YES | NO |
|-----------------------------------|---------------|---------------|
| - Landfill | <u>X</u> | <u> </u> |
| - Surface Impoundment | <u>X</u> | <u> </u> |
| - Land Farm | <u> </u> | <u>X</u> |
| - Waste Pile | <u> </u> | <u>X</u> |
| - Incinerator | <u>X</u> | <u> </u> |
| - Storage Tank (Above Ground) | <u> </u> | <u>X</u> |
| - Storage Tank (Underground) | <u>X</u> | <u> </u> |
| - Container Storage Area | <u> </u> | <u>X</u> |
| - Injection Wells | <u> </u> | <u>X</u> |
| - Wastewater Treatment Units | <u>X</u> | <u> </u> |
| - Transfer Stations | <u> </u> | <u>X</u> |
| - Waste Recycling Operations | <u> </u> | <u>X</u> |
| - Waste Treatment, Detoxification | <u> </u> | <u>X</u> |
| - Other <u>see attachment</u> | <u>X</u> | <u> </u> |

2. If there are "Yes" answers to any of the items in Number 1 above, please provide a description of the wastes that were stored, treated or disposed of in each unit. In particular, please focus on whether or not the wastes would be considered as hazardous wastes or hazardous constituents under RCRA. Also include any available data on quantities or volume of wastes disposed on and the dates of disposal. Please also provide a description of each unit and include capacity, dimensions, location at facility, provide a site plan if available.

see attached document

RECEIVED

MAR 7 1991

EPA-DLPC

NOTE: Hazardous waste are those identified in 40 CFR 261. Hazardous constituents are those listed in Appendix VIII of 40 CFR Part 261.

3. For the units noted in Number 1 above and also those hazardous waste units in your Part A application and in your closure plan please describe for each unit any data available on any prior or current releases of hazardous wastes or constituents to the environment that may have occurred in the past or still be occurring.

Please provide the following information

- a. Date of release
- b. Type of waste released
- c. Quantity or volume of waste released
- d. Describe nature of release (i.e., spill, overflow, ruptured pipe or tank, etc.)

see attached document for details. The sites are being studied

as part of an on-going program call the Installation Restoration

Program (IRP). This is a staged program designed to identify,

quantify and remediate old waste sites.

4. In regard to the prior releases described in Number 3 above, please provide (for each unit) any analytical data that may be available which would describe the nature and extent of environmental contamination that exists as a result of such releases. Please focus on concentrations of hazardous wastes or constituents present in contaminated soil or groundwater.

see attached document

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the submittal is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. (42 U.S.C. 6902 et seq. and 40 CFR 270.11(d))

DANIEL J. COONAN III, Colonel, USAF
Commander

Typed Name and Title

Daniel J. Coonan III

Signature

6 Mar 91

Date

3. There is no data available documenting a date of release, type of waste released or quantity of waste released. A release to the ground has been documented through an investigative study under the Installation Restoration Program (IRP).

4. Analytical data from the IRP study is provided in Attachment 2 to this document.

III. Incinerators

Hospital Waste Incinerator:

1. The Hospital Waste Incinerator is an operational unit, currently in use.

2. The hospital waste incinerator is operated under IEPA Permit 163815AAA with an expiration date of May 26, 1992. It is a Kelley-Model 380/31 incinerator. It is used to burn general hospital waste (Type 7) at a rate not to exceed 330 pounds per hour. The estimated amount of waste currently disposed of in the incinerator is 2,300 pounds per day. No more than 10% of the charge entering the incinerator is pathological. The unit contains a primary chamber operating at 600 deg-F and a secondary afterburner operating at 1,650 deg-F.

3. There is no information available that documents a date, type or quantity of waste material released. There is no documented release from the unit.

4. There is no analytical data available documenting a release from the unit.

IV. Storage Tank (Underground)

A. Tank Number 4:

1. Tank number 4 is an inactive underground storage tank that contained an unknown material.

2. Tank number 4 is an underground storage tank located in the Aqua Yard area. The capacity is 25,000 gallons. It was installed in 1940 and is currently inactive. The type of material previously stored in the tank is unknown. Construction is an unprotected steel with no cathodic protection, leak detection or secondary containment. The tank is scheduled for removal during FY 91 following requirements of the Illinois Office of State Fire Marshal regulations.

3. There is no data available which indicates a date, type or volume of waste material released from the tank. There is no history of release from the tank.

4. There is no analytical data available indicating a release from the tank.

4. There is no analytical data available which documents a release from the tank system.

E. Tank Number 16:

1. Tank number 16 is an inactive underground storage tank that contained waste synthetic oils.

2. Tank number 16 is an underground storage tank located in the Aqua Yard area. The capacity is 10,000 gallons. It was installed in 1942 and is currently inactive. The type of material previously stored in the tank was a waste synthetic oil. Construction is an unprotected steel with no cathodic protection, leak detection or secondary containment. The tank is scheduled for removal during FY 91 following requirements of the Illinois Office of State Fire Marshal regulations.

3. There is no data available which indicates a date, type or volume of waste material released from the tank. There is no history of release from the tank.

4. There is no analytical data available which documents a release from the tank system.

F. Tank Number 22:

1. Tank number 22 is an inactive underground storage tank that contained waste JP-4 fuel.

2. Tank number 22 is an underground storage tank located at building 508. The capacity is 50,000 gallons. It was installed in 1951 and is currently inactive. The type of material stored in the tank was waste JP-4 fuel. Construction is an unprotected steel with no cathodic protection, leak detection or secondary containment. The tank is scheduled for removal during FY 91 following requirements of the Illinois Office of State Fire Marshal regulations.

3. There is no data available which indicates a date, type or volume of waste material released from the tank. There is no history of release from the tank.

4. Attachment 4 provides analytical data from a leak detection test conducted in November 1990 documenting no leakage from the system.

G. Tank Number 27:

1. Tank number 27 is an active underground storage tank that contains waste JP-4 fuel.

2. Tank number 27 is an underground storage tank as part of an operational catch drain system located at building 508. The tank system is normally empty unless materials are accidentally leaked in building 508. The capacity is 550 gallons. It was installed in 1984 and is currently active. The type of material stored in the tank is a waste JP-4 fuel. Construction material is unknown with no leak detection or secondary containment.

3. There is no data available which indicates a date, type or volume of waste material released from the tank. There is no history of release from the tank.

4. There is no analytical data available which documents a release from the tank system.

H. Tank Number 41:

1. Tank number 41 is an active underground storage tank that contains waste mixed fuels from an oil water separator.

2. Tank number 41 is an underground storage tank as part of an operational oil/water separator located at building 3184. The tank system is normally empty unless materials are removed from the waste stream in the oil/water separator from the building. The capacity is 550 gallons. It was installed in 1965 and is currently active. The type of material stored in the tank is a waste mixed fuels. Construction material is unknown with no leak detection or secondary containment.

3. There is no data available which indicates a date, type or volume of waste material released from the tank. There is no history of release from the tank.

4. There is no analytical data available which documents a release from the tank system.

I. Tank Number 43:

1. Tank number 43 is an active underground storage tank that contains waste mixed fuels from an oil water separator.

2. Tank number 43 is an underground storage tank as part of an operational oil/water separator located at building 3172. The tank system is normally empty unless materials are removed from the waste stream in the oil/water separator from the building. The capacity is 550 gallons. It was installed in 1989 and is currently active. The type of material stored in the tank is a waste mixed fuels. Construction material is fiberglass with leak detection and secondary containment meeting requirements of the Illinois Office of State Fire Marshal regulations.

3. There is no data available which indicates a date, type or volume of waste material released from the tank. There is no history of release from the tank.

4. There is no analytical data available which documents a release from the tank system.

J. Tank Number 71:

1. Tank number 71 is an active underground storage tank that contains waste oils.

2. Tank number 71 is an underground storage tank located at building 1965. The capacity is 550 gallons. It was installed at an unknown date and

is currently active. The type of material stored in the tank is waste oils. Construction is an unprotected steel with no cathodic protection, leak detection or secondary containment.

3. There is no data available which indicates a date, type or volume of waste material released from the tank. There is no history of release from the tank.

4. Attachment 5 provides analytical data from a leak detection test conducted in February 1991 documenting no leakage from the system.

K. Tank Number 84:

1. Tank number 84 is an active underground storage tank that contains waste mixed fuels from an oil water separator.

2. Tank number 84 is an underground storage tank as part of an operational oil/water separator located at building 548. The tank system is normally empty unless materials are removed from the waste stream in the oil/water separator from the building. The capacity is 5,000 gallons. It was installed in 1964 and is currently active. The type of material stored in the tank is a waste mixed fuels. Construction material is unknown with no leak detection or secondary containment.

3. There is no data available which indicates a date, type or volume of waste material released from the tank. There is no history of release from the tank.

4. There is no analytical data available which documents a release from the tank system.

L. Tank Number 88:

1. Tank number 88 is an active underground storage tank that contains waste mixed fuels from an oil water separator.

2. Tank number 88 is an underground storage tank as part of an operational oil/water separator located at building 742. The tank system is normally empty unless materials are removed from the waste stream in the oil/water separator from the building. The capacity is 500 gallons. It was installed at an unknown date and is currently active. The type of material stored in the tank is a waste mixed fuels. Construction material is unknown with no leak detection or secondary containment.

3. There is no data available which indicates a date, type or volume of waste material released from the tank. There is no history of release from the tank.

4. There is no analytical data available which documents a release from the tank system.

M. Tank Number 94:

1. Tank number 94 is an active underground storage tank that contains waste oils.

2. Tank number 94 is an underground storage tank used in the collection of waste oil from building 1989. The tank system is used to collect waste oils from automotive oil changes performed in the building. The capacity is 550 gallons. It was installed at an unknown date and is currently active. The type of material stored in the tank is waste oils. Construction material is unknown with no leak detection or secondary containment.

3. There is no data available which indicates a date, type or volume of waste material released from the tank. There is no history of release from the tank.

4. There is no analytical data available which documents a release from the tank system.

N. Tank Number 95:

1. Tank number 95 is an active underground storage tank that contains waste oils.

2. Tank number 95 is an underground storage tank used in the collection of waste oil from the heating oil tank dike area for structure number 8455. The tank system is used to collect waste oils from spills in the dike area as collected in a drain trap. The capacity is 2,000 gallons. It was installed in 1971 and is currently active. The type of material stored in the tank is waste oils. Construction material is steel with cathodic protection, no leak detection or secondary containment.

3. There is no data available which indicates a date, type or volume of waste material released from the tank. There is no history of release from the tank.

4. There is no analytical data available which documents a release from the tank system.

V. Container Storage Area

A. Aqua Yard Storage Facility:

1. The Aqua Yard Storage Facility is identified in both the Part A and Closure Plan.

2. The Aqua Yard Storage Facility is a storage structure designed for storing barrels of waste. Dimensions of the facility are 8 feet by 32 feet at the curb lines. The roof measures 10 feet by 40 feet, including overhangs. It is located on the north side of the Aqua Storage Yard, a fenced in area measuring 40,350 square feet. The topography of the area is essentially flat with stormwater runoff draining off the yard via conventional storm drainage paths and structures. The storage area was operational for storage of hazardous waste from 1984 until November 1990. This waste management unit is to be closed. No hazardous waste was disposed at the site; it is strictly for container storage.

3. There is no data available concerning date, type or quantity of

hazardous materials released from the unit. There is no history of any release from the unit.

4. There is no analytical data available concerning releases of hazardous materials from the unit.

B. Building 540:

1. Building 540 was initially identified on the Part A permit as a container storage unit. It has been used exclusively for the storage of PCB equipment which is exempt from the RCRA requirements.

2. Building 540 is a 700 square foot structure used to store PCB and PCB containing equipment. A reinforced concrete curb containment area is located in the west half of the building. The curbs are 20 inches tall. Dimensions of the concrete curbed area are 12 feet by 15 feet for a total secondary containment area of 183 square feet. A 12 feet by 6 feet concrete loading dock is located on the north exterior of the building. PCB equipment is moved from the loading dock area to the containment area through the use of an overhead 1-ton crane. Building 540 is managed under requirements of TSCA. The waste materials stored have been exclusively PCBs. This area is expected to close after all PCB transformers have been removed from Scott AFB. This is anticipated by December 1991. The closure will be accomplished under TSCA.

3. There is no data available on date, type or quantity of hazardous materials released from the unit. There is no history of any type of release from the unit.

4. There is no analytical data available on any type of release of hazardous materials from the unit.

VI. Wastewater Treatment Units

A. Wastewater Treatment Plant:

1. The wastewater treatment plant is located in the southeastern portion of the base.

2. The existing wastewater treatment plant was constructed in 1940. Additions have been made to the original facilities in order to provide for tertiary treatment and to meet the requirements of the Illinois EPA. The present plant consists of bar screens, three comminutors, four primary sedimentation basins, two trickling filters, three final clarifiers, sludge digesters, 24 sludge drying beds, chlorination facilities and a rapid sand filter. Effluent from the plant flows through a 24-inch effluent sewer during normal flows and also through a 15-inch effluent sewer during peak flows and is discharged into the South Ditch which flows to Silver Creek. Sludge from the treatment plant is hauled from the base and utilized for land application. The base maintains a contract with a private hauler to provide this service. The average design capacity of the treatment plant is 1.5 million gallons per day while the maximum and minimum capacities are 2.8 and 0.9 million gallons per day respectively. The average flow treated at the plant is 1.675 million gallons per day.

3. The treatment plant provides adequate treatment of sanitary waste during normal flows. During peak flows the excess is bypassed from the plant. The excess flow is chlorinated and discharged to Silver Creek. Scott AFB discharges effluent under the requirements of a NPDES permit. Permit requirements are being met during normal operation of the treatment plant. No excursions of hazardous waste or hazardous materials have been documented as being released from the sewage treatment plant.

4. Attachment 6 provides analytical details for the 1990 reporting period under the NPDES permit. No other analytical data is available concerning effluent discharged from the plant.

B. Oil/Water Separators:

1. There are a total of ten oil/water separators located on Scott AFB.
2. The list of oil/water separator locations is as follows:

| | |
|-----------|--------------|
| Bldg 432 | 3,500 gallon |
| Bldg 435 | 500 gallon |
| Bldg 546 | 500 gallon |
| Bldg 548 | 500 gallon |
| Bldg 742 | 500 gallon |
| Bldg 1965 | 150 gallons |
| Bldg 1989 | 500 gallon |
| Bldg 3172 | 4,000 gallon |
| Bldg 3184 | 500 gallon |
| Bldg 3672 | 500 gallon |

These units are all designed for the separation of oils and greases from the waste stream prior to discharge into the sanitary or storm sewer systems. They operate on a simple skimming/settling principle where the lighter floating hydrocarbons are removed from the top and sludge materials settle to the bottom. The units are periodically pumped out to remove the sludges and floating oils. The units located at buildings 548, 742, 3172 and 3184 have underground tanks associated with them to collect the oils for disposal. The units are generally constructed of reinforced concrete. Ages on the systems are unknown.

3. There is no data available on date, type or quantity of hazardous waste or hazardous materials released from the units. There is no history of releases from the units.

4. There is no analytical data available documenting a release of hazardous materials from the units.

C. Grease Traps:

1. There are twenty grease traps located on Scott AFB.
2. The list of grease trap locations is as follows:

| | |
|-----------|-----------|
| Bldg 53 | Bldg 504 |
| Bldg 861 | Bldg 1192 |
| Bldg 1500 | Bldg 1509 |

| | |
|-------------------------|-----------|
| Bldg 1530 | Bldg 1600 |
| Bldg 1630 | Bldg 1649 |
| Bldg 1700 (2 locations) | Bldg 1907 |
| Bldg 1930 | Bldg 1934 |
| Bldg 1948 | Bldg 1972 |
| Bldg 1989 (2 locations) | Bldg 3189 |

These units are all designed for the separation of dirt and grease from the waste stream prior to discharge into the sanitary or storm sewer systems. They operate on a simple skimming/settling principle where the sludge materials settle to the bottom. The units are periodically pumped out to remove the sludges. Construction materials are generally reinforced concrete and the ages are mostly unknown or dating to the construction of the building they are associated with.

3. There is no data available on date, type or quantity of hazardous waste or hazardous materials released from the units. There is no history of releases from the units.

4. There is no analytical data available documenting a release of hazardous materials from the units.

D. Septic Systems:

1. There are five septic systems operational on Scott AFB.
2. The list of septic system locations is as follows:

| | |
|------------------|-----------|
| Bldg 547 | Bldg 1089 |
| Bldg 3648 | Bldg 6900 |
| Family Camp Area | |

These units are all designed for the treatment of sanitary waste water when hook up to the main sanitary sewage system is not available. With the exception of the Family Camp Area, the units all work on standard microbial digestion of solids and the discharge of liquids to drain fields or wet wells. The system at the Family Camp Area consists of two 2,000-gallon tanks used to hold the waste for pumping. Sizes of the units are generally unknown. Construction dates are tied to the age of the respective buildings. The units are all programmed for replacement with anaerobic digester units in the future.

3. There is no data available on date, type or quantity of hazardous waste or hazardous materials released from the units. There is no history of releases from the units and the units are not located on structures that use industrial processes that would discharge to them.

4. There is no analytical data available documenting a release of hazardous materials from the units.

VII. Other Units

A. Fire Protection Training Area No. 1

1. The Fire Protection Training Area No. 1 (FPTA #1) is an inactive unit on Scott AFB.

2. Fire Protection Training Area No. 1 is believed to be located to the north and west of the small arms range. The exact location of FPTA #1 is unknown; construction of the small arms firing range, and a softball field modified the area such that the location cannot be determined. The approximate location was determined from historic aerial photographs.

According to base records, FPTA #1 was active from approximately 1942 until the early 1950s. While in operation oils and paint thinners was stored in 55-gallon drums adjacent to the site. During training exercises the drums were emptied onto a soil and gravel covered area, ignited and extinguished. The frequency of training exercises is unknown; retired base personnel indicated what exercises took place at least monthly with several hundred gallons of fuel used during each exercise. Unburned fuel was not recovered. At present the site of FPTA #1 is level, vegetated with grass, and serves as a softball field.

3. There is no documented data on the dates or volumes of materials released in the area. Oils and paint thinners were the chemicals involved.

4. Attachment 7 provides analytical data on studies conducted around the site to characterize the materials released into the soil and groundwater.

B. Fire Protection Training Area No. 2

1. The Fire Protection Training Area No. 2 (FPTA #2) is an inactive unit on Scott AFB.

2. Fire Protection Training Area No. 2 is believed to be located to the north and east of the base sewage treatment plant.

The site was used for fire training exercises from the early 1950s until approximately 1969. Similarly to FPTA #1, fuel (including waste alcohol, gasoline, paint thinners, and waste JP-4) was stored in 55-gallon drums adjacent to the site. Often there were as many as 200 drums at the site. During training exercises five to ten drums were emptied onto a soil and gravel covered area, and the fuels ignited and extinguished. Extinguishing agents included CB protein foam and carbon dioxide. Burn frequencies average one or two times monthly; unburned fuel collection was not practiced. The hull of a B-52 aircraft used in the fire training exercises was pushed into the landfill as part of the site grading a closure. During the study the site was sparsely vegetated, level, and served as a staging area for contractors involved in the wastewater treatment plant reconstruction project.

3. There is no documented data on the dates or volumes of materials released in the area. Oils, paint thinners and various fuels were the chemicals involved.

4. Attachment 8 provides analytical data on studies conducted around the site to characterize the materials released into the soil and groundwater.

C. Fire Protection Training Area No. 3

1. The Fire Protection Training Area No. 3 (FPTA #3) is an active unit on Scott AFB.

2. Fire Protection Training Area No. 3 is located to the north and east of building 3172.

FPTA #3 is the site of current fire training exercises. The site was activated in 1969 and originally consisted of an aircraft mock-up on a soil and gravel covered area. In 1979 an unburned fuel recovery system was installed. This system includes a concrete lined burn pit draining to an oil-water separator and an underground fuel storage tank. The oil phase from the oil water separator is stored for re-use in the on-site, underground storage tank; the water phase drains to the base sanitary sewer system.

Fire training exercises at FPTA #3 are conducted two to three times each quarter and typically involve the release of 900 gallons of fuel (waste JP-4) into the burn area. Extinguishing agents include Aqueous Film Forming Foam (AFFF), Halon 1211, CB Protein foam, and ABC dry chemical.

3. There is no documented data on the dates or volumes of materials released in the area. Waste JP-4 fuel was the primary chemical involved.

4. Attachment 9 provides analytical data on studies conducted around the site to characterize the materials released into the soil and groundwater.

D. Facility 8550 Spill Site

1. The spill site located at Facility 8550 is an active storage location for JP-4 fuel on Scott AFB.

2. Facility 8550 is an above ground storage tank located along the south boundary of the base.

According to civilian personnel working at the base, approximately 13,000 gallons of JP-4 fuel was lost in a 1977 spill incident at tank 8550. Base records are not clear on the matter; however, the incident reportedly involved a 120,000 gallon release with 107,000 gallons recovered from the diked secondary containment around the tank. An undetermined amount of fuel was reportedly discharged to the south ditch located just south of tank 8550. Fuel recovery wells were installed after the spill, but did not yield any fuel.

3. The spill reportedly resulted in the loss of 13,000 gallons of JP-4 fuel at some time in 1977. Records are not clear on the details of the incident.

4. Attachment 10 provides analytical data on studies conducted around the site to characterize the materials released into the soil and groundwater.

E. Facility 1965 Spill Site

1. The spill site located at Facility 1965 is an active gasoline service station on Scott AFB.

2. Facility 1965 is the AFFES Gasoline Service Station located along Scott Drive near the south boundary of the base.

In the mid 1970s an undetermined amount of MOGAS was released from a faulty valve on an underground storage tank adjacent to Facility 1965. The leak was

discovered when petroleum odors were detected in adjacent sanitary sewer lines; therefore, it is not known how long the tank leaked. A major effort was undertaken to recover lost fuel when the tank was excavated for repairs. Although several barrels of fuel were recovered during repair operations, the extent of any remaining contamination was not determined.

3. The spill resulted in the loss of an unknown quantity of MOGAS at some time in the mid 1970s. Records are not clear on the details of the incident.

4. Attachment 11 provides analytical data on studies conducted around the site to characterize the materials released into the soil and groundwater.

F. Building 1680

1. Building 1680 is the site of the old dental clinic on Scott AFB. It is currently used to house other medical functions for the base.

2. Building 1680 is located at the corner of West Martin Street and J Street in the southwest section of the base.

Building 1680 housed the base dental facilities from the late 1940s to 1984.; presently, Building 1680 serves as a satellite pharmacy, office building and optometry clinic. This building was constructed with an earthen crawl space below the building to allow for utility maintenance. During plumbing repairs, mercury containing dental amalgams, which were routinely disposed of in sink drains, may have contaminated the soils in the crawl space.

3. No records are available which indicate dates, quantities or types of materials that may have entered the soils. The site has no record of actual disposal or release of hazardous materials.

4. Attachment 12 provides analytical data on studies conducted around the site to characterize the materials released into the soil and groundwater.

LIST OF ATTACHMENTS

1. Analytical Data from Landfill Studies
2. Analytical Data from Sludge Lagoon Studies
3. Analytical Data from Tank Tightness Test for Tank 6
4. Analytical Data from Tank Tightness Test for Tank 22
5. Analytical Data from Tank Tightness Test for Tank 71
6. Analytical Data from Sewage Treatment Plant Effluent
7. Analytical Data from Fire Protection Training Area No. 1
8. Analytical Data from Fire Protection Training Area No. 2
9. Analytical Data from Fire Protection Training Area No. 3
10. Analytical Data from Facility 8550 Spill Site
11. Analytical Data from Facility 1965 Spill Site
12. Analytical Data from Building 1680 Crawl Space
13. Base Layout Plan Showing Solid Waste Management Units

ATTACHMENT 1

ANALYTICAL DATA FROM LANDFILL STUDIES

EXTRACTED FROM IRP PHASE II



TABLE ES-4
SUMMARY GROUND WATER ANALYTICAL RESULTS STAGE I REMEDIAL
INVESTIGATION/FEASIBILITY STUDY
SCOTT AIR FORCE BASE, ILLINOIS

| Site/Parameter (1) | Concentration (2) ug/l | Background (3) (where Available) | Potential ARAR (4) ug/l |
|--|---------------------------|-------------------------------------|----------------------------|
| SITE 1 - LANDFILL | | | |
| Volatiles | | | |
| Vinyl Chloride | 8.6J-89 | | 2MCL |
| trans-1,2-Dichloroethene | ND-410 | | 100 PMCL |
| Trichloroethene | ND-24 | | 5 MCL |
| Diethyl Ether | 2-38 | | |
| Chlorobenzene | 1.7-2.2 | | 100 MCL (5) |
| Benzene | ND-7.7 | | 5 MCL |
| Toluene | ND-2.0 | | 2000 PMCL |
| Xylene | ND-4.4 | | 10,000 PMCL |
| Semivolatiles | ND | | |
| Pesticides | | | |
| 4-4' DDE | ND-0.14 | | |
| 4-4' DDT | 0.11-8 | | |
| Endosulfan | ND-8 | | |
| Dieldrin | ND-0.12 | | |
| Endrin | ND-0.16 | | 0.2 MCL |
| Total Petroleum Hydrocarbons (mg/l) | ND-1700 | | |
| Total Inorganics (mg/l) (6) | | | |
| Lead | 0.05-0.70 | | 0.05 MCL |
| Chromium | 0.072 | | 0.05 MCL |
| Barium | 1.14 | | 1.0 MCL |



TABLE ES-5
SUMMARY SOIL ANALYTICAL RESULTS
STAGE I REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SCOTT AIR FORCE BASE, ILLINOIS

| Site/Parameter (1) | Concentration mg/kg | Background Concentrations (2) mg/kg |
|---|--------------------------------|--|
| SITE 1 - LANDFILL | | |
| Volatiles | | |
| 1,2-Dichloroethene | 0.12 | ND |
| Chlorobenzene | 0.015 | ND |
| Chloromethane | 0.015 | ND |
| Semivolatiles | | |
| Phenanthrene | 9.7 | ND |
| Fluoranthene | 13 | ND |
| Pyrene | 17 | ND |
| Benzo(a)anthracene | 5.9 | ND |
| Chrysene | 6.5 | ND |
| Benzo(b)fluoranthene | 6.7 | ND |
| Indeno(1,2,3-cd)pyrene | 1.8 | ND |
| Pesticides | | |
| 4-4' DDD | 0.12 | ND |
| Total Petroleum Hydrocarbons (3) | ND-820 | ND |
| Inorganics (4) | | |
| Cyanide | 4.2 | ND |
| Arsenic | ND-100 | ND |
| Mercury | ND-0.35 | ND |
| Barium (3) | 41.5-730 | 22.2-28.6 |
| Lead | 3.2-2750 | 4.5-19.8 |
| Cobalt | 14.2 | ND-5.5 |
| Chromium | 41 | 3.3-5.3 |
| Copper | 90 | 7.4-16.3 |
| Nickel | 62 | ND |
| Selenium | 67.2-621 | ND-60.6 |
| Thallium | 11.4-92 | 5.8-21.7 |
| Zinc | 1220 | 18.8-32.2 |

TABLE ES-6
SUMMARY SURFACE WATER AND SEDIMENT ANALYTICAL RESULTS
SITE 1 LANDFILL
SCOTT AIR FORCE BASE, ILLINOIS

| Parameter (1) | Concentration | ARAR (2) | |
|------------------------------|---------------|-------------------|--------------------|
| | | Chronic | Acute |
| Surface Water (ug/l) | | | |
| Volatiles | | | |
| Chloroform | 1.1-1.3 | 1,240 µg/l (LOEL) | 28,900 µg/l (LOEL) |
| Bromodichloromethane | 2.1-2.5 | | |
| Total Petroleum Hydrocarbons | 150-1900 | 1.1 | 0.001 |
| Pesticides | | | |
| DDT | ND-2 | | |
| Cyanide | 0.014-0.026 | 5.2 mg/l | 22 mg/l |
| Sediment (mg/kg) | | | |
| Volatiles | | | |
| Toluene | 0.019-0.023 | | |
| Chlorobenzene | 0.029 | | |
| Semivolatiles | | | |
| Benzo(a)anthracene | 0.94 | | |
| Chrysene | 1.2 | | |
| Benzo(b)fluoranthene | 1.4 | | |
| Benzo(k)flouranthene | 0.9 | | |
| Benzo(a)pyrene | 0.85 | | |
| Ideno(1,2,3-cd)pyrene | 1.3 | | |
| Benzo(g,h,i)perylene | 1.7 | | |
| Fluoranthene | 2.3 | | |
| Pyrene | 1.5 | | |
| Total Petroleum Hydrocarbons | 130-2100 | | |
| Inorganics (3) | | | |
| Arsenic | 31.8-64.9 | | |
| Cobalt | 5.9-22.5 | | |
| Mercury | 0.17-1.1 | | |

(1) Parameters include only those compounds quantitatively detected

(2) Refers to U.S. EPA Surface Water Quality Criteria (1986); LOEL=Lowest Observed Effects Level

(3) Qualitative estimates only

(4) Inorganics include only non-qualified data

083M177



TABLE ES-7
TOTAL SITE-SPECIFIC RISK AT SCOTT AIR FORCE BASE

| Site | Exposed Population | Noncarcinogenic Hazard Indices | | Carcinogenic Risk | |
|------|--------------------|--------------------------------|-----------------|-------------------|-----------------|
| | | Maximum | Most Probable | Maximum | Most Probable |
| 1 | Adult | 7.00E-01 | 3.18E-01 | 1.62E-02 | 2.60E-03 |
| | Child 6-12 | 1.23E+00 | 6.65E-01 | 2.08E-02 | 2.85E-03 |
| | Child 2-6 | 2.54E+00 | 1.27E+00 | 3.26E-02 | 4.60E-03 |
| | Lifetime Weighted | 8.55E-01 | 4.05E-01 | 1.76E-02 | 2.74E-03 |

Values in bold type represent those numbers that exceed USEPA guidelines for acceptable risk (i.e., hazard index >1 or 1E-4)

083M176



TABLE ES-8
RISK ASSESSMENT SUMMARY

| SITE | EXPOSURE SCENARIO | RISK PRESENTED BY |
|------------|---|--|
| 1 Landfill | Ground water ingestion Bathing (inhalation) Soil ingestion (stable area) Soil ingestion (landfill) | Barium, Arsenic, Vinyl Chloride Vinyl Chloride BTE* Arsenic, BTEs |

- * BTE - Benzo(a)pyrene toxic equivalent
- ** Arsenic present at concentrations below the MCL.
Arsenic present at the MCL presents a 10E3 cancer risk.

ATTACHMENT 2

ANALYTICAL DATA FROM SLUDGE LAGOON STUDIES

EXTRACTED FROM IRP PHASE II



TABLE ES-4 (cont'd)
SUMMARY GROUND WATER ANALYTICAL RESULTS STAGE I REMEDIAL
INVESTIGATION/FEASIBILITY STUDY
SCOTT AIR FORCE BASE, ILLINOIS

| Site/Parameter (1) | Concentration (2) ug/l | Background (3) (where Available) | Potential ARAR (4) ug/l |
|--------------------|---------------------------|-------------------------------------|----------------------------|
|--------------------|---------------------------|-------------------------------------|----------------------------|

SITE 7- SLUDGE LAGOON

| | | |
|--|--------|----|
| Total Petroleum Hydrocarbons (mg/l) | ND-1.2 | ND |
|--|--------|----|

- (1) Parameters include only those compounds quantitatively confirmed unless noted.
- (2) Range of concentration provided where contaminants detected in more than one sample from each site.
- (3) Background presented at those sites where there were wells located upgradient of the suspected source of contamination.
- (4) ARARs developed from Federal Safe Drinking Water Act. MCL - refers to the Maximum Contaminant Levels under the Safe Drinking Water Act. PMCL is a proposed MCL under the Act. MCLG refers to the Maximum Contaminant Level Goal under the Act. PMCLG refers to the proposed MCLG.
- (5) MCL is for total trihalomethanes.
- (6) Only inorganics quantitatively detected at concentrations above ARARs are presented.
- (7) Concentrations are quantitative estimates only.





TABLE ES-5 (cont'd)
SUMMARY SOIL ANALYTICAL RESULTS
STAGE I REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SCOTT AIR FORCE BASE, ILLINOIS

| <u>Site/Parameter (1)</u> | <u>Concentration</u> <u>mg/kg</u> | <u>Background</u> <u>Concentrations (2)</u> <u>mg/kg</u> |
|------------------------------|--------------------------------------|--|
| SITE 7- SLUDGE LAGOON | | |
| Inorganics | | |
| Selenium | ND-329 | 0-60.6 |
| Thallium | 5.8-48.3 | 0-21.7 |

- (1) Parameters include only those compounds quantitatively detected unless noted.
- (2) Samples used to determine background concentrations include the following:

| Well | Depth Interval (ft.BLS) |
|------|--|
| 5-1 | 2-4, 33-35 organics only, no inorganics analyzed |
| 6-1 | 8-10, 13-15 no inorganics except lead |
| 7-1 | 23-25, 28-30 |

- (3) Concentrations are quantitative estimates.
- (4) Inorganics listed are present above base background levels.
- NA - Not available



TABLE ES-7
TOTAL SITE-SPECIFIC RISK AT SCOTT AIR FORCE BASE

| Site | Exposed Population | Noncarcinogenic Hazard Indices | | Carcinogenic Risk | |
|------|--------------------|--------------------------------|---------------|-------------------|-----------------|
| | | Maximum | Most Probable | Maximum | Most Probable |
| 7 | Adult | NA | NA | 1.47E-03 | 4.37E-04 |
| | Child 6-12 | 9.00E-02 | 3.66E-02 | 3.50E-03 | 1.06E-03 |
| | Child 2-6 | NA | NA | 6.44E-03 | 1.93E-03 |
| | Lifetime Weighted | 7.94E-03 | 3.23E-03 | 1.94E-03 | 5.80E-04 |

Values in bold type represent those numbers that exceed USEPA guidelines for acceptable risk (i.e., hazard index >1 or 1E-4)

083M176





TABLE ES-8
RISK ASSESSMENT SUMMARY

| SITE | EXPOSURE SCENARIO | RISK PRESENTED BY |
|------|-------------------|-------------------|
|------|-------------------|-------------------|

| | | |
|-------------------|------------------------|---------|
| 7 Sludge Lagoon** | Ground water ingestion | Arsenic |
|-------------------|------------------------|---------|

* BTE - Benzo(a)pyrene toxic equivalent

** Arsenic present at concentrations below the MCL.

Arsenic present at the MCL presents a 10E3 cancer risk.

ATTACHMENT 3

ANALYTICAL DATA FROM TANK TIGHTNESS TEST FOR TANK 6

EXTRACTED FROM TRC REPORT

**CERTIFICATION**

90-1175-07

Location: Scott Air Force Base
Aqua Yard
Scott AFB, Illinois

Date: November 6, 1990

| <u>TANK #</u> | <u>PRODUCT</u> | <u>SIZE (gal)</u> | <u>TRACER</u> | <u>LEAK STATUS</u> |
|---------------|----------------|-------------------|---------------|--------------------|
| Tank 1 | Waste Oil | 25,000 | DDM | One |

Tracer Research Corporation certifies that the tanks and pipe systems listed in the above table have been tested by means of Tracer Tight™, which meets the criteria set forth in NFPA 329 for a precision leak test.

Submitted by:


Tracer Research Corporation

The following criteria are used for the classification of leaks when tracer is detected.

**LEAK
STATUS**

- One **NO LEAKAGE** - Rate less than 0.005 gallons per hour.
- Two **VAPOR LEAK** - Maximum tracer concentration less than 1 ug/L in soil vapor diminishing at depths below three feet. Total volatile hydrocarbon concentrations less than 20 mg/L in soil vapor (if diesel is the only fuel present, substitute 0.1 mg/L in place of 20 mg/L).
- Three **SMALL OR INTERMITTENT PRODUCT LEAK** less than 0.05 gph - Maximum tracer concentration less than 1 ug/L in soil vapor, sustaining or increasing at depths below three feet or to the top of the groundwater table. Hydrocarbon concentrations approximately equal to or greater than 20 mg/L in soil vapor (0.1 mg/L for diesel) sustaining or increasing below three feet. Distribution of elevated hydrocarbons is less than 200 square feet total area.
- Four **SIGNIFICANT PRODUCT LEAK** 0.05 gph or greater - Maximum tracer concentration greater than 1 ug/L near source, increasing or sustaining concentration below three feet or to the top of the groundwater table. Hydrocarbon concentrations greater than 20 mg/L in soil vapor (0.1 mg/L for diesel) sustaining or increasing below three feet. Distribution of elevated hydrocarbons is equal to or greater than 200 square feet total area.



Envirotec/Scott AFB/Aqua Yard

90-1175-07

11/06/90

CONDENSED DATA

Page 1

| Location | Compound | Concentration |
|----------|----------|---------------|
| 01 | 114B2 | 0.0000 |
| 01 | BCF | 0.0000 |
| 01 | DDM | 0.0000 |
| 01 | TPHC | 0.0000 |
| 01(D) | 114B2 | 0.0000 |
| 01(D) | BCF | 0.0000 |
| 01(D) | DDM | 0.0000 |
| 01(D) | TPHC | 0.0000 |
| 02 | 114B2 | 0.0000 |
| 02 | BCF | 0.0000 |
| 02 | DDM | 0.0000 |
| 02 | TPHC | 0.0000 |
| 03 | 114B2 | 0.0000 |
| 03 | BCF | 0.0000 |
| 03 | DDM | 0.0000 |
| 03 | TPHC | .2280 |
| 04 | 114B2 | 0.0000 |
| 04 | BCF | 0.0000 |
| 04 | DDM | 0.0000 |
| 04 | TPHC | 0.0000 |
| AIR | 114B2 | 0.0000 |
| AIR | BCF | 0.0000 |
| AIR | DDM | 0.0000 |
| AIR | TPHC | 0.0000 |
| BLANK01 | 114B2 | 0.0000 |
| BLANK01 | BCF | 0.0000 |
| BLANK01 | DDM | 0.0000 |
| BLANK01 | TPHC | 0.0000 |

TPHC in mg/L, Tracers in ug/L

0.0000 = Not detected Detection Limits: Tracer (0.0005)

-9999999999 = No sample

TPHC (0.05)



**CERTIFICATION**

90-1175-07

Location: Scott Air Force Base
Building 508, Tank 21 & 22
Scott AFB, Illinois

Date: November 6, 1990

| <u>TANK #</u> | <u>PRODUCT</u> | <u>SIZE (gal)</u> | <u>TRACER</u> | <u>LEAK STATUS</u> |
|---------------|----------------|-------------------|---------------|--------------------|
| Tank 21 | Jet Fuel | 50,000 | DDM | One |
| Tank 22 | Jet Fuel | 50,000 | 114B2 | One |

Tracer Research Corporation certifies that the tanks and pipe systems listed in the above table have been tested by means of Tracer Tight™, which meets the criteria set forth in NFPA 329 for a precision leak test.

Submitted by:


Tracer Research Corporation

The following criteria are used for the classification of leaks when tracer is detected.

**LEAK
STATUS**

- One** **NO LEAKAGE** - Rate less than 0.005 gallons per hour.
- Two** **VAPOR LEAK** - Maximum tracer concentration less than 1 ug/L in soil vapor diminishing at depths below three feet. Total volatile hydrocarbon concentrations less than 20 mg/L in soil vapor (if diesel is the only fuel present, substitute 0.1 mg/L in place of 20 mg/L).
- Three** **SMALL OR INTERMITTENT PRODUCT LEAK** less than 0.05 gph - Maximum tracer concentration less than 1 ug/L in soil vapor, sustaining or increasing at depths below three feet or to the top of the groundwater table. Hydrocarbon concentrations approximately equal to or greater than 20 mg/L in soil vapor (0.1 mg/L for diesel) sustaining or increasing below three feet. Distribution of elevated hydrocarbons is less than 200 square feet total area.
- Four** **SIGNIFICANT PRODUCT LEAK** 0.05 gph or greater - Maximum tracer concentration greater than 1 ug/L near source, increasing or sustaining concentration below three feet or to the top of the groundwater table. Hydrocarbon concentrations greater than 20 mg/L in soil vapor (0.1 mg/L for diesel) sustaining or increasing below three feet. Distribution of elevated hydrocarbons is equal to or greater than 200 square feet total area.



ATTACHMENT 4

ANALYTICAL DATA FROM TANK TIGHTNESS TEST FOR TANK 22

EXTRACTED FROM TRC REPORT

90-1175-07

11/05/90

CONDENSED DATA

Page 1

| Location | Compound | Concentration |
|----------|----------|------------------|
| 01 | 114B2 | 0.0000 |
| 01 | BCF | 0.0000 |
| 01 | DDM | 0.0000 |
| 01 | TPHC | .5080 |
| 02 | 114B2 | 0.0000 |
| 02 | BCF | 0.0000 |
| 02 | DDM | 0.0000 |
| 02 | TPHC | .3270 |
| 03 | 114B2 | 0.0000 |
| 03 | BCF | 0.0000 |
| 03 | DDM | 0.0000 |
| 03 | TPHC | 1.0740 |
| 04 | 114B2 | 0.0000 |
| 04 | BCF | 0.0000 |
| 04 | DDM | 0.0000 |
| 04 | TPHC | 4.0510 |
| 05 | 114B2 | 0.0000 |
| 05 | BCF | .0018 |
| 05 | DDM | 0.0000 |
| 05 | TPHC | 9.6660 |
| 06 | 114B2 | -9999999999.0000 |
| 06 | BCF | -9999999999.0000 |
| 06 | DDM | -9999999999.0000 |
| 06 | TPHC | -9999999999.0000 |
| 07 | 114B2 | 0.0000 |
| 07 | BCF | 0.0000 |
| 07 | DDM | 0.0000 |
| 07 | TPHC | 14.8720 |

TPHC in mg/L, Tracers in ug/L

0.0000 = Not detected Detection Limits: Tracer (0.0005)

-9999999999 = No sample

TPHC (0.05)

90-1175-07

11/05/90

CONDENSED DATA

Page 2

| Location | Compound | Concentration |
|----------|----------|------------------|
| 08 | 114B2 | 0.0000 |
| 08 | BCF | 0.0000 |
| 08 | DDM | 0.0000 |
| 08 | TPHC | 5.8730 |
| 09 | 114B2 | 0.0000 |
| 09 | BCF | 0.0000 |
| 09 | DDM | 0.0000 |
| 09 | TPHC | 4.0710 |
| 10 | 114B2 | 0.0000 |
| 10 | BCF | 0.0000 |
| 10 | DDM | 0.0000 |
| 10 | TPHC | .6690 |
| 11 | 114B2 | 0.0000 |
| 11 | BCF | 0.0000 |
| 11 | DDM | 0.0000 |
| 11 | TPHC | .3590 |
| 12 | 114B2 | -9999999999.0000 |
| 12 | BCF | -9999999999.0000 |
| 12 | DDM | -9999999999.0000 |
| 12 | TPHC | -9999999999.0000 |
| BLANK01 | 114B2 | 0.0000 |
| BLANK01 | BCF | 0.0000 |
| BLANK01 | DDM | 0.0000 |
| BLANK01 | TPHC | 0.0000 |
| BLANK02 | 114B2 | 0.0000 |
| BLANK02 | BCF | 0.0000 |
| BLANK02 | DDM | 0.0000 |
| BLANK02 | TPHC | 0.0000 |

TPHC in mg/L, Tracers in ug/L
 0.0000 = Not detected Detection Limits: Tracer (0.0005)
 -9999999999 = No sample TPHC (0.05)



ATTACHMENT 5

ANALYTICAL DATA FROM TANK TIGHTNESS TEST FOR TANK 71

EXTRACTED FROM TRC REPORT

**CERTIFICATION**

90-1175-07

Location: Scott Air Force Base
Building 1965, Tank 68, 69 & 71
Scott AFB, Illinois

Date: February 8, 1991

| <u>TANK #</u> | <u>PRODUCT</u> | <u>SIZE (gal)</u> | <u>TRACER</u> | <u>LEAK STATUS</u> |
|---------------|----------------|-------------------|---------------|--------------------|
| Tank 1 | Unleaded | 10,000 | 114B2 & DDM | Pass |
| Tank 2 | Super | 10,000 | DDM | Pass |
| Tank 3 | Waste Oil | 550 | 114B2 | Pass |

Tracer Research Corporation certifies that the tank and pipe systems listed in the above table have been tested by means of Tracer Tight™, which meets the criteria set forth in NFPA 329 for a precision leak test. According to EPA standard test procedures for evaluating leak detection methods, this Tracer Tight™ method is capable of detecting leaks of 0.05 gallons per hour with a Probability of Detection (P_D) of 0.97 and Probability of False Alarm (P_{FA}) of 0.029.

Submitted by:

Tracer Research Corporation

The following criteria are used for the classification of leakage when tracer is detected.

PASS - Leak rate less than 0.05 gallons per hour.

Criteria:

Tracer
less than 0.1 ug/L

Depth below grade
At five feet

less than 1.0 ug/L
but greater than 0.1 ug/L

If concentration decreases with an increase in depth

FAIL - Leak rate equal to or greater than 0.05 gallons per hour.

Criteria:

Tracer
greater than or equal to 1.0 ug/L

Depth below grade
At any depth

greater than or equal to 0.1 ug/L
but less than 1.0 ug/L

If concentration sustains or increases with an
increase in depth.*

* Sustaining concentrations are those concentrations which are within 50% of the concentration detected at the shallower depth.





Envirotec/Scott Air Force Base
Swansea, IL.

91-1175a07

Test Data

| 2/08/91 | CONDENSED DATA | Page 1 |
|----------|----------------|---------------|
| Location | Compound | Concentration |
| 003 | 114B2 | 0.0000 |
| 003 | BCF | 0.0000 |
| 003 | DDM | 0.0000 |
| 003 | TPHC | 0.0000 |
| 004 | 114B2 | 0.0000 |
| 004 | BCF | 0.0000 |
| 004 | DDM | 0.0000 |
| 004 | TPHC | 0.0000 |

TPHC in mg/L, Tracers in ug/L
0.0000 = Not detected Detection Limits: Tracer (0.0005)
-9999999999 = No sample TPHC (0.05)



ATTACHMENT 6

ANALYTICAL DATA FROM SEWAGE TREATMENT PLANT EFFLUENT

EXTRACTED FROM NPDES REPORT

DISCHARGE MONITORING REPORT

PERMITTEE NAME **USAF**

ADDRESS **Scott AFB, IL 62225**

PHONE **618/256-4226**
Region VI

COMMENTS

| | | | | | | | | |
|-----------------------|---------------|--------|-------------|----------|-----------|-------------|--------|--------|
| 12.3 | 14.161 | 17.191 | 20.211 | 22.231 | 24.251 | 26.271 | 28.291 | 30.311 |
| IL | 0026859 | DIS | SIC | LATITUDE | LONGITUDE | | | |
| ST | PERMIT NUMBER | | | | | | | |
| REPORTING PERIOD FROM | | | TO | | | | | |
| 9 | 0 | 0 | 1 | 0 | 1 | 9 | 0 | 1 |
| YEAR MO DAY | | | YEAR MO DAY | | | YEAR MO DAY | | |

| (32-37) | | | (48-53) | | | (54-61) | | | (62-63) | | | (64-68) | | | (69-70) | | |
|-------------------------------------|------------------|----------------------|---------|---------|---------------|-------------|---------------|--|---------|--------|-------|-----------------------|-------------|--|---------|--|--|
| PARAMETER | | QUANTITY | | | | NO EX | CONCENTRATION | | | | NO EX | FREQUENCY OF ANALYSIS | SAMPLE TYPE | | | | |
| | | MINIMUM | AVERAGE | MAXIMUM | UNITS | | MINIMUM | AVERAGE | MAXIMUM | UNITS | | | | | | | |
| BOD ₅ | REPORTED | | 17 | 76 | Lbs/day | 0 | | 2 | 7 | Mg/l | 0 | 2/7 | 24 | | | | |
| | PERMIT CONDITION | | 155 | 417 | | | | 10 | 20 | | 2/7 | 24 | | | | | |
| TSS | REPORTED | | 14 | 80 | Lbs/day | 0 | | 1 | 8 | Mg/l | 0 | 2/7 | 24 | | | | |
| | PERMIT CONDITION | | 186 | 500 | | | | 12 | 24 | | 2/7 | 24 | | | | | |
| FLOW | REPORTED | | 1.362 | | MGD | 0 | | | | | | CONT | N/A | | | | |
| | PERMIT CONDITION | | 1.860 | | | | | | | | | CONT | N/A | | | | |
| COLIFORM | REPORTED | | | | | | | | 290 | 100/ML | 0 | 2/7 | Grab | | | | |
| | PERMIT CONDITION | | | | | | | 400 | 2/7 | | Grab | | | | | | |
| CHLORINE | REPORTED | | 0 | | Lbs/day | 0 | | 0 | | Mg/l | 0 | 7/7 | Grab | | | | |
| | PERMIT CONDITION | | 11.62 | | | | | 0.75 | | | 5/7 | Grab | | | | | |
| P.H. | REPORTED | 7.0 | | 7.7 | Standard Unit | 0 | | | | | | 7/7 | Grab | | | | |
| | PERMIT CONDITION | 6.0 | | 9.0 | | | | | | 2/7 | Grab | | | | | | |
| AMMONIA/NITROGEN | REPORTED | | | | | | | 1.4 | | | 0 | 2/7 | 24 | | | | |
| | PERMIT CONDITION | | | | | | | 1.5/4.0 | | | 2/7 | 24 | | | | | |
| | REPORTED | | | | | | | | | | | | | | | | |
| | PERMIT CONDITION | | | | | | | | | | | | | | | | |
| NAME OF PRINCIPAL EXECUTIVE OFFICER | | TITLE OF THE OFFICER | | | | DATE | | I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief such information is true, complete, and accurate. | | | | | | | | | |
| Kolnsberg, Donald L. | | Utilities Foreman | | | | 91031205 | | | | | | | | | | | |
| LAST FIRST MI | | TITLE | | | | YEAR MO DAY | | | | | | | | | | | |
| | | | | | | | | SIGNATURE OF PRINCIPLE EXECUTIVE OFFICER OR AUTHORIZED AGENT | | | | | | | | | |

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM COMMENTS.

DISCHARGE MONITORING REPORT

PERMITTEE NAME

USAF

COMMENTS

ADDRESS

SCOTT AFB, IL. 62225

PHONE

618-256-4226

Corrected DMR
Variance Conditions

L

REGION VI

| |
|----|
| IL |
| ST |

0026859

PERMIT NUMBER

| |
|-----|
| DIS |
|-----|

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| SIC |
|-----|

| | |
|----------|-----------|
| LATITUDE | LONGITUDE |
|----------|-----------|

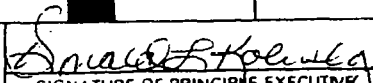
REPORTING PERIOD FROM

| | | | | | |
|------|----|-----|---|---|---|
| 9 | 0 | 0 | 2 | 0 | 1 |
| YEAR | MO | DAY | | | |

TO

| | | | | | |
|------|----|-----|---|---|---|
| 9 | 0 | 0 | 2 | 2 | 8 |
| YEAR | MO | DAY | | | |

| PARAMETER | | QUANTITY | | | | | CONCENTRATION | | | | | FREQUENCY OF ANALYSIS | SAMPLE TYPE |
|------------------|------------------|----------|---------|---------|-------------|-------|---------------|---------|---------|----------|-------|-----------------------|-------------|
| | | MINIMUM | AVERAGE | MAXIMUM | UNITS | NO EX | MINIMUM | AVERAGE | MAXIMUM | UNITS | NO EX | | |
| BOD5 | REPORTED | | 1035 | 1517 | LBS/day | 2 | | 20 | 70 | | 2 | 2/7 | 24 |
| | PERMIT CONDITION | | 155/185 | 417/550 | | | | 10/20 | 20/30 | Mg/L | | 2/7 | 24 |
| TSS | REPORTED | | 455 | 802 | LBS/day | 2 | | 21 | 37 | | 2 | 2/7 | 24 |
| | PERMIT CONDITION | | 186/210 | 500/600 | | | | 12/20 | 24/35 | Mg/L | | 2/7 | 24 |
| FLOW | REPORTED | | 2.53 | 3.1 | MGD | 0 | | | | | | 7/7 | CONT |
| | PERMIT CONDITION | | | | | | | | | | | | 7/7 |
| COLIFORM | REPORTED | | | | | | | | TNTC | | 3 | 2/7 | GRAB |
| | PERMIT CONDITION | | | | | | | | 400 | 100/Mg/L | | 2/7 | GRAB |
| CHLORINE | REPORTED | | 5 | | LBS/day | 0 | | .002 | | | 0 | 7/7 | GRAB |
| | PERMIT CONDITION | | 11.62 | | | | | 0.75 | | Mg/L | | 5/7 | GRAB |
| P.H. | REPORTED | 7.1 | | 7.6 | STAND/UNITS | 0 | | | | | | 7/7 | GRAB |
| | PERMIT CONDITION | 6.0 | | 9.0 | | | | | | | | 2/7 | GRAB |
| AMMONIA/NITROGEN | REPORTED | | | | | | | 6.9 | | | 3 | 2/7 | 24 |
| | PERMIT CONDITION | | | | | | | 1.5/4.0 | | | | 2/7 | 24 |
| | REPORTED | | | | | | | | | | | | |
| | PERMIT CONDITION | | | | | | | | | | | | |

| | | | | |
|-------------------------------------|----------------------|-------------|--|---|
| NAME OF PRINCIPAL EXECUTIVE OFFICER | TITLE OF THE OFFICER | DATE | I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief such information is true, complete, and accurate. |  SIGNATURE OF PRINCIPLE EXECUTIVE OFFICER OR AUTHORIZED AGENT |
| KOLNSBERG, DONALD L. | FOREMAN | 9 0 0 9 2 8 | | |
| LAST FIRST MI | TITLE | YEAR MO DAY | | |

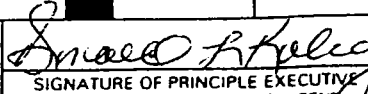
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM COMMENTS
DISCHARGE MONITORING REPORT

PERMITTEE NAME
ADDRESS
PHONE

USAF
SCOTT AFB, IL 62225
618-256-4226

COMMENTS
Corrected DRM
Variance Conditions

| | | | | | |
|-----------------------|---------------|-------------|-----|----------|-----------|
| IL | 0026859 | | | | |
| ST | PERMIT NUMBER | DIS | SIC | LATITUDE | LONGITUDE |
| | | | | | |
| REPORTING PERIOD FROM | | TO | | | |
| 9 0 0 3 0 1 | | 9 0 0 3 3 1 | | | |
| YEAR MO DAY | | YEAR MO DAY | | | |

| PARAMETER | | QUANTITY | | | | | CONCENTRATION | | | | | FREQUENCY OF ANALYSIS | SAMPLE TYPE |
|-------------------------------------|------------------|----------------------|---------|------------------|--------|--|---------------|---------|---------|----------|-------|---|-------------|
| | | MINIMUM | AVERAGE | MAXIMUM | UNITS | NO EX | MINIMUM | AVERAGE | MAXIMUM | UNITS | NO EX | | |
| BOD5 | REPORTED | | 107 | 167 | LBS/ | 0 | | 8 | 8 | | 0 | 2/7 | 24 |
| | PERMIT CONDITION | | 155/185 | 417/550 | day | | | 10/20 | 20/30 | Mg/L | | 2/7 | 24 |
| TSS | REPORTED | | 83 | 83 | LBS/ | 0 | | 4 | 4 | | 0 | 2/7 | 24 |
| | PERMIT CONDITION | | 186/210 | 500/600 | day | | | 12/20 | 24/35 | Mg/L | | 2/7 | 24 |
| FLOW | REPORTED | | 2.8 | 3.7 | MGD | 0 | | | | | | 7/7 | CONT |
| | PERMIT CONDITION | | | | | | | | | | | 7/7 | CONT |
| COLIFORM | REPORTED | | | | | | | | 0 | 100/Mg/L | 0 | 2/7 | GRAB |
| | PERMIT CONDITION | | | | | | | | 400 | | | 2/7 | GRAB |
| CHLORINE | REPORTED | | 4 | | LBS/ | 0 | | .175 | | | 0 | 7/7 | GRAB |
| | PERMIT CONDITION | | 11.62 | | day | | | 0.75 | | | | 5/7 | GRAB |
| P.H. | REPORTED | 7.0 | | 7.4 | STAND/ | 0 | | | | | | 7/7 | GRAB |
| | PERMIT CONDITION | 6.0 | | 9.0 | UNITS | | | | | | | 2/7 | GRAB |
| AMMONIA/NITROGEN | REPORTED | | | | | | | 10 | | | 1 | 2/7 | 24 |
| | PERMIT CONDITION | | | | | | | 1.5/4.0 | | | | 2/7 | 24 |
| | REPORTED | | | | | | | | | | | | |
| | PERMIT CONDITION | | | | | | | | | | | | |
| NAME OF PRINCIPAL EXECUTIVE OFFICER | | TITLE OF THE OFFICER | | DATE | | I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief such information is true, complete, and accurate. | | | | | |  SIGNATURE OF PRINCIPLE EXECUTIVE OFFICER OR AUTHORIZED AGENT | |
| KOLNSBERG, DONALD L. | | FOREMAN | | 9 10 0 1 9 2 1 8 | | | | | | | | | |
| LAST FIRST MI | | TITLE | | YEAR MO DAY | | | | | | | | PAGE OF | |

DISCHARGE MONITORING REPORT

USAF

ADDRESS Scott AFB, IL 62225

PHONE 618/256-4226
Region VI

COMMENTS

| | | | | | |
|----------|--------------------------|-----|-----|----------|-----------|
| IL ST | 0026859 PERMIT NUMBER | DIS | SIC | LATITUDE | LONGITUDE |
|----------|--------------------------|-----|-----|----------|-----------|

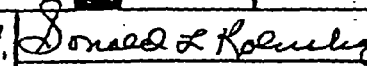
REPORTING PERIOD FROM

9 0 0 4 0 1
YEAR MO DAY

TO

9 0 0 4 1 1
YEAR MO DAY

| PARAMETER | | QUANTITY | | | | | CONCENTRATION | | | | | FREQUENCY OF ANALYSIS | SAMPLE TYPE |
|------------------|------------------|----------|---------|---------|---------------|-------|---------------|---------|---------|--------|-------|-----------------------|-------------|
| | | MINIMUM | AVERAGE | MAXIMUM | UNITS | NO EX | MINIMUM | AVERAGE | MAXIMUM | UNITS | NO EX | | |
| BOD ₅ | REPORTED | | 25 | 163 | Lbs/day | 0 | | 1 | 6 | Mg/l | 0 | 2/7 | 24 |
| | PERMIT CONDITION | | 155 | 417 | | | | 10 | 20 | | | 2/7 | 24 |
| TSS | REPORTED | | 25 | 125 | Lbs/day | 0 | | 1 | 6 | Mg/l | 0 | 2/7 | 24 |
| | PERMIT CONDITION | | 186 | 500 | | | | 12 | 24 | | | 2/7 | 24 |
| FLOW | REPORTED | | 2.631 | | MGD | 1 | | | | | | CONT | N/A |
| | PERMIT CONDITION | | 1.860 | | | | | | | | | CONT | N/A |
| COLIFORM | REPORTED | | | | | | | | 22 | 100/ML | 0 | 2/7 | Grab |
| | PERMIT CONDITION | | | | | | | | 400 | | | 2/7 | Grab |
| CHLORINE | REPORTED | | 3 | | Lbs/day | 0 | | 0.1 | | Mg/l | 0 | 7/7 | Grab |
| | PERMIT CONDITION | | 11.62 | | | | | 0.75 | | | | 5/7 | Grab |
| P.H. | REPORTED | 6.8 | | 7.4 | Standard Unit | 0 | | | | | | 7/7 | Grab |
| | PERMIT CONDITION | 6.0 | | 9.0 | | | | | | | | 2/7 | Grab |
| AMMONIA/NITROGEN | REPORTED | | | | | | | 1.1 | | | 0 | 2/7 | 24 |
| | PERMIT CONDITION | | | | | | | 1.5/4.0 | | | | 2/7 | 24 |
| | REPORTED | | | | | | | | | | | | |
| | PERMIT CONDITION | | | | | | | | | | | | |

| | | | | |
|-------------------------------------|----------------------|----------------------------|--|---|
| NAME OF PRINCIPAL EXECUTIVE OFFICER | TITLE OF THE OFFICER | DATE | I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief such information is true, complete, and accurate. |  SIGNATURE OF PRINCIPLE EXECUTIVE OFFICER OR AUTHORIZED AGENT |
| olsnberg, Donald L. | Utilities Foreman | 9 0 0 5 0 4 YEAR MO DAY | | |

DISCHARGE MONITORING REPORT

PERMITTEE NAME **USAF**

ADDRESS **Scott AFB, IL 62225**

PHONE **618/256-4226**
Region VI

COMMENTS

1. All excursions happened on the day we treated 7. MGD. The day after that we treated 6.1 MGD. The days referred to are the 16&17.

IL
ST

0026859

PERMIT NUMBER

DIS

SIC

LATITUDE

LONGITUDE

REPORTING PERIOD FROM

9 0 0 5 0 1
YEAR MO DAY

TO

9 0 0 5 3 1
YEAR MO DAY

| PARAMETER | | QUANTITY | | | | NO EX | CONCENTRATION | | | | NO EX | FREQUENCY OF ANALYSIS | SAMPLE TYPE |
|------------------|------------------|----------|-----------------|---------|---------------|-------|---------------|-----------------|---------|--------|-------|-----------------------|-------------|
| | | MINIMUM | AVERAGE (30-31) | MAXIMUM | UNITS | | MINIMUM | AVERAGE (30-31) | MAXIMUM | UNITS | | | |
| BOD ₅ | REPORTED | | 60 | 407 | Lbs/day | 1 | | 2 | 8 | Mg/l | 0 | 2/7 | 24 |
| | PERMIT CONDITION | | 155 | 347.4 | Lbs/day | | | 10 | 20 | Mg/l | | 2/7 | 24 |
| TSS | REPORTED | | 110 | 1424 | Lbs/day | 1 | | 4 | 28 | Mg/l | 1 | 2/7 | 24 |
| | PERMIT CONDITION | | 186 | 417 | Lbs/day | | | 12 | 24 | Mg/l | | 2/7 | 24 |
| FLOW | REPORTED | | 3.328 | 7.000 | MGD | | | | | | | 7/7 | CONT |
| | PERMIT CONDITION | | | | MGD | | | | | | | 7/7 | CONT |
| COLIFORM | REPORTED | | | | | | | | 370 | 100/ML | 0 | 2/7 | Grab |
| | PERMIT CONDITION | | | | | | | | 400 | 100/ML | | 2/7 | Grab |
| CHLORINE | REPORTED | | | | Lbs/day | | | | 0.7 | Mg/l | 0 | 7/7 | Grab |
| | PERMIT CONDITION | | | | Lbs/day | | | | 0.75 | Mg/l | | 5/7 | Grab |
| P.H. | REPORTED | 6.9 | | 7.6 | Standard Unit | 0 | | | | | | 7/7 | Grab |
| | PERMIT CONDITION | 6.0 | | 9.0 | Standard Unit | | | | | | | 2/7 | Grab |
| AMMONIA/NITROGEN | REPORTED | | | | | | | 0.3 | | | 0 | 2/7 | 24 |
| | PERMIT CONDITION | | | | | | | 1.5/4.0 | | | | 2/7 | 24 |
| | REPORTED | | | | | | | | | | | | |
| | PERMIT CONDITION | | | | | | | | | | | | |

NAME OF PRINCIPAL EXECUTIVE OFFICER

TITLE OF THE OFFICER

DATE

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief such information is true, complete, and accurate.

Donald L. Kolnsberg
SIGNATURE OF PRINCIPLE EXECUTIVE OFFICER OR AUTHORIZED AGENT

Donald L. Kolnsberg

Utilities Foreman

9 0 0 6 0 7
YEAR MO DAY

LAST FIRST MI

TITLE

YEAR MO DAY

PAGE OF

This Agency is authorized to require this information under Illinois Revised Statutes, 1979, Chapter 111 1/2, Section 1042. Disclosure of this information is required. Failure to do so may result in a civil penalty up to \$10,000.00 per violation.

DISCHARGE MONITORING REPORT

PERMITTEE NAME **USAF**

ADDRESS **Scott AFB, IL 62225**

PHONE **618/256-4226**
Region VI

Variance Conditions

COMMENTS

TNTC-Coliform due to hydraulic overload
of 3.5 MGD

IL
ST

0026859

PERMIT NUMBER

DIS

SIC

LATITUDE

LONGITUDE

REPORTING PERIOD FROM

91 0 0 6 0 1
YEAR MO DAY

TO

91 0 0 6 3 0
YEAR MO DAY

may# 65 C

RECEIVED
JUL 1 6 1990
Environmental Protection Agency
STATE OF ILLINOIS

| PARAMETER | | QUANTITY | | | | CONCENTRATION | | | | FREQUENCY OF ANALYSIS | SAMPLE TYPE |
|------------------|------------------|----------|---------|---------|---------------|---------------|---------|---------|--------|-----------------------|-------------|
| | | MINIMUM | AVERAGE | MAXIMUM | UNITS | MINIMUM | AVERAGE | MAXIMUM | UNITS | | |
| BOD ₅ | REPORTED | | 111 | 150 | Lbs/day | | 7.5 | 9 | Mg/l | 2/7 | 24 |
| | PERMIT CONDITION | | 155 | 347.4 | Lbs/day | | 10 | 20 | Mg/l | 2/7 | 24 |
| TSS | REPORTED | | 87 | 166 | Lbs/day | | 4 | 6 | Mg/l | 2/7 | 24 |
| | PERMIT CONDITION | | 186 | 417 | Lbs/day | | 12 | 24 | Mg/l | 2/7 | 24 |
| FLOW | REPORTED | | 2.3 | 3.5 | MGD | | | | | 7/7 | CONT |
| | PERMIT CONDITION | | | | MGD | | | | | 7/7 | CONT |
| COLIFORM | REPORTED | | | | | | | TNTC | 100/ML | 2/7 | Grab |
| | PERMIT CONDITION | | | | | | | 400 | 100/ML | 2/7 | Grab |
| CHLORINE | REPORTED | | | | Lbs/day | | | .01 | Mg/l | 7/7 | Grab |
| | PERMIT CONDITION | | | | Lbs/day | | | 0.75 | Mg/l | 5/7 | Grab |
| P.H. | REPORTED | 6.9 | | 7.3 | Standard Unit | | | | | 7/7 | Grab |
| | PERMIT CONDITION | 6.0 | | 9.0 | Standard Unit | | | | | 2/7 | Grab |
| AMMONIA/NITROGEN | REPORTED | | | | | | 1.5 | | | 2/7 | 24 |
| | PERMIT CONDITION | | | | | | 1.5/4.0 | | | 2/7 | 24 |
| | REPORTED | | | | | | | | | | |
| | PERMIT CONDITION | | | | | | | | | | |

NAME OF PRINCIPAL EXECUTIVE OFFICER

TITLE OF THE OFFICER

DATE

KOLNSBERG DONALD L.

Foreman

91 0 0 7 0 9
YEAR MO DAY

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief such information is true, complete, and accurate.

SIGNATURE OF PRINCIPLE EXECUTIVE OFFICER OR AUTHORIZED AGENT

PAGE 01

DISCHARGE MONITORING REPORT

PERMITTEE NAME **USAF**

ADDRESS **Scott AFB, IL 62225**

PHONE **618/256-4226**
Region VI

COMMENTS

No - Variance DMR Required - No flows over 2 MGD.

Excursion - on coliform due to .03 rain fall on 5 Jul 90.

| | | | | | |
|----------|--------------------------|-------------------------|-----|-------------------------|-----------|
| IL ST | 0026859 PERMIT NUMBER | DIS | SIC | LATITUDE | LONGITUDE |
| | | (17-18) | | | |
| | | (20-21) (22-23) (24-25) | | (26-27) (28-29) (30-31) | |
| | | 90 07 01 YEAR MO DAY | | 90 07 31 YEAR MO DAY | |

REPORTING PERIOD FROM

TO

| PARAMETER | | QUANTITY | | | | NO EX | CONCENTRATION | | | | NO EX | FREQUENCY OF ANALYSIS | SAMPLE TYPE |
|----------------------|---------------------|----------|--------------------|---------|-----------------------|----------|---------------|--------------------|---------|--------|----------|-----------------------------|----------------|
| | | MINIMUM | AVERAGE (30-31) | MAXIMUM | UNITS | | MINIMUM | AVERAGE (30-31) | MAXIMUM | UNITS | | | |
| BOD ₅ | REPORTED | | 99 | 184 | Lbs/ day | 0 | | 7.2 | 8 | Mg/l | 0 | 2/7 | 24 |
| | PERMIT CONDITION | | 155 | 347.4 | | | | 10 | 20 | | | 2/7 | 24 |
| TSS | REPORTED | | 62 | 165 | Lbs/ day | | | 4.6 | 11 | Mg/l | 0 | 2/7 | 24 |
| | PERMIT CONDITION | | 186 | 417 | | | | 12 | 24 | | | 2/7 | 24 |
| FLOW | REPORTED | | 1.791 | 1.966 | MGD | 0 | | | | | | 7/7 | CONT |
| | PERMIT CONDITION | | | | | | | | | | | 7/7 | CONT |
| COLIFORM | REPORTED | | | | | | | | 508 | 100/ML | 1 | 2/7 | Grab |
| | PERMIT CONDITION | | | | | | | | 400 | | | 2/7 | Grab |
| CHLORINE | REPORTED | | | | Lbs/ day | | | | .01 | Mg/l | 0 | 7/7 | Grab |
| | PERMIT CONDITION | | | | | | | | 0.75 | | | 5/7 | Grab |
| P.H. | REPORTED | 7.1 | | 7.5 | Stan- dard Unit | 0 | | | | | | 7/7 | Grab |
| | PERMIT CONDITION | 6.0 | | 9.0 | | | | | | | | 2/7 | Grab |
| AMMONIA/ NITROGEN | REPORTED | | | | | | | .97 | | | 0 | 2/7 | 24 |
| | PERMIT CONDITION | | | | | | | 1.5/4.0 | | | | 2/7 | 24 |
| | REPORTED | | | | | | | | | | | | |
| | PERMIT CONDITION | | | | | | | | | | | | |

| | | | |
|-------------------------------------|----------------------|-------------|--|
| NAME OF PRINCIPAL EXECUTIVE OFFICER | TITLE OF THE OFFICER | DATE | I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief such information is true, complete, and accurate. |
| KOLNSBERG DONALD L. | Foreman | 90 08 06 | SIGNATURE OF PRINCIPLE EXECUTIVE OFFICER OR AUTHORIZED AGENT |
| LAST FIRST MI | TITLE | YEAR MO DAY | |

This Agency is authorized to require this information under Illinois Revised Statutes, 1979, Chapter 111 1/2, Section 1042. Disclosure of this information is required. Failure to do so may result in a civil penalty up to \$10,000.00 per

DISCHARGE MONITORING REPORT

PERMITTEE NAME **USAF**

ADDRESS **Scott AFB, IL 62225**

PHONE **618/256-4226**

Region VI

COMMENTS

Trickling Filter # 2 was taken out service for repairs to center column due to concrete failure.

| | | | | | |
|--|-----------------------------------|-------------------------------|--------------|-------------------|--------------------|
| 12 3 IL ST | 14 15 0026859 PERMIT NUMBER | 17 18 DIS | 19 20 SIC | 21 22 LATITUDE | 23 24 LONGITUDE |
| REPORTING PERIOD FROM 9 0 0 8 0 1 YEAR MO DAY | | TO 9 0 0 8 3 1 YEAR MO DAY | | | |

| PARAMETER | | QUANTITY | | | | | CONCENTRATION | | | | | FREQUENCY OF ANALYSIS | SAMPLE TYPE |
|------------------|------------------|----------|---------|---------|---------------|-------|---------------|---------|---------|--------|-------|-----------------------|-------------|
| | | MINIMUM | AVERAGE | MAXIMUM | UNITS | NO EX | MINIMUM | AVERAGE | MAXIMUM | UNITS | NO EX | | |
| BOD ₅ | REPORTED | | 76 | 293 | Lbs/day | 0 | | 8 | 8 | Mg/l | 0 | 2/7 | 24 |
| | PERMIT CONDITION | | 155 | 347.4 | | | | 10 | 20 | | | 2/7 | 24 |
| TSS | REPORTED | | 11 | 120 | Lbs/day | 0 | | 5 | 9 | Mg/l | 0 | 2/7 | 24 |
| | PERMIT CONDITION | | 186 | 417 | | | | 12 | 24 | | | 2/7 | 24 |
| FLOW | REPORTED | | 1.627 | 2.009 | MGD | 0 | | | | | | 7/7 | CONT |
| | PERMIT CONDITION | | | | | | | | | | | 7/7 | CONT |
| COLIFORM | REPORTED | | | | | | | | 90 | 100/ML | 0 | 2/7 | Grab |
| | PERMIT CONDITION | | | | | | | | 400 | | | 2/7 | Grab |
| CHLORINE | REPORTED | | | | Lbs/day | | | | .02 | Mg/l | 0 | 7/7 | Grab |
| | PERMIT CONDITION | | | | | | | | 0.75 | | | 5/7 | Grab |
| P.H. | REPORTED | 7.0 | | 7.3 | Standard Unit | 0 | | | | | | 7/7 | Grab |
| | PERMIT CONDITION | 6.0 | | 9.0 | | | | | | | | 2/7 | Grab |
| AMMONIA/NITROGEN | REPORTED | | | | | | | 7.07 | | | 1 | 2/7 | 24 |
| | PERMIT CONDITION | | | | | | | 1.5/4.0 | | | | 2/7 | 24 |
| | REPORTED | | | | | | | | | | | | |
| | PERMIT CONDITION | | | | | | | | | | | | |

| | | | | | | |
|-------------------------------------|--------|----------------------|---------|---------|--|--|
| NAME OF PRINCIPAL EXECUTIVE OFFICER | | TITLE OF THE OFFICER | | DATE | I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief such information is true, complete, and accurate. | SIGNATURE OF PRINCIPLE EXECUTIVE OFFICER OR AUTHORIZED AGENT |
| LAST | FIRST | MI | TITLE | YEAR | | |
| KOLNSBERG | DONALD | I | FOREMAN | 9 0 9 9 | | |

11 532-0082
WPC 242 11/79

This Agency is authorized to require this information under Illinois Revised Statutes, 1979, Chapter 111 1/2, Section 1042. Disclosure of this information is required. Failure to do so may result in a civil penalty up to \$10,000.00 per violation.

DISCHARGE MONITORING REPORT

PERMITTEE NAME **USAF**

COMMENTS

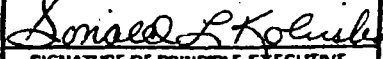
ADDRESS **Scott AFB, IL 62225**

PHONE **618/256-4226**
Region VI

#2 Trickling Filter still is out of service
repairs are expected to be completed by 1 Nov.
1990.

| | | | | |
|------------------------|-----------------------------------|--------------------------|-------------------|--------------------|
| 12 3 IL ST | 14 15 0026859 PERMIT NUMBER | 17-19 DIS SIC | 20-21 LATITUDE | 22-23 LONGITUDE |
| REPORTING PERIOD FROM | | TO | | |
| 9 0 0 1 YEAR MO DAY | | 9 0 9 3 0 YEAR MO DAY | | |

| PARAMETER | | QUANTITY | | | | CONCENTRATION | | | | FREQUENCY OF ANALYSIS | SAMPLE TYPE |
|------------------|------------------|----------|---------|---------|---------------|---------------|---------|---------|--------|-----------------------|-------------|
| | | MINIMUM | AVERAGE | MAXIMUM | UNITS | MINIMUM | AVERAGE | MAXIMUM | UNITS | | |
| BOD ₅ | REPORTED | | 90 | 188 | Lbs/day | 0 | 7 | 7 | Mg/l | 2/7 | 24 |
| | PERMIT CONDITION | | 155 | 347.4 | | | 10 | 20 | | 2/7 | 24 |
| TSS | REPORTED | | 68 | 100 | Lbs/day | 0 | 4.7 | 7 | Mg/l | 2/7 | 24 |
| | PERMIT CONDITION | | 186 | 417 | | | 12 | 24 | | 2/7 | 24 |
| FLOW | REPORTED | | 1.7 | 1.976 | MGD | 0 | | | | 7/7 | CONT |
| | PERMIT CONDITION | | | | | | | | | 7/7 | CONT |
| COLIFORM | REPORTED | | | | | | | 256 | | 2/7 | Grab |
| | PERMIT CONDITION | | | | | | | 400 | 100/ML | 2/7 | Grab |
| CHLORINE | REPORTED | | | | Lbs/day | | | .2 | Mg/l | 7/7 | Grab |
| | PERMIT CONDITION | | | | | | | 0.75 | | 5/7 | Grab |
| P.H. | REPORTED | 7.1 | | 7.4 | Standard Unit | | | | | 7/7 | Grab |
| | PERMIT CONDITION | 6.0 | | 9.0 | | | | | | 2/7 | Grab |
| AMMONIA/NITROGEN | REPORTED | | | | | | 5.2 | | | 2/7 | 24 |
| | PERMIT CONDITION | | | | | | 1.5/4.0 | | | 2/7 | 24 |
| | REPORTED | | | | | | | | | | |
| | PERMIT CONDITION | | | | | | | | | | |

| | | | | |
|-------------------------------------|----------------------|---------|--|--|
| NAME OF PRINCIPAL EXECUTIVE OFFICER | TITLE OF THE OFFICER | DATE | I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief such information is true, complete, and accurate. |  SIGNATURE OF PRINCIPLE EXECUTIVE OFFICER OR AUTHORIZED REPRESENTATIVE |
| Kolnsbergd Donald L. | Foreman | 90 1 11 | | |
| LAST | MI | TITLE | YEAR MO DAY | PAGE |

This Agency is authorized to require this information under Illinois Revised Statutes, 1979, Chapter 111 1/2, Section 1042. Disclosure of this information is required. Failure to do so may result in a civil penalty up to \$10,000.00 per day of violation or a fine up to \$25,000.00 per day of violation and imprisonment.

DISCHARGE MONITORING REPORT

PERMITTEE NAME **USAF**

ADDRESS **Scott AFB, IL 62225**

PHONE **618/256-4226**
Region VI

COMMENTS

2 Trickling Filter is back in service.
 Ammonia/nitrogen should improve during the next reporting period.

| | | | | | | |
|-------------------------|---|--|-----|----------|-----------|--|
| 12.3 IL ST | (4 16) 0026859 PERMIT NUMBER | (17-19) DIS | SIC | LATITUDE | LONGITUDE | |
| | | (21-23) (24-25) (26-27) (28-29) (30-31) 9 0 1 0 0 1 YEAR MO DAY | | | | |
| | | TO | | | | |
| | | (32-33) (34-35) (36-37) (38-39) (40-41) 9 0 10 3 1 YEAR MO DAY | | | | |

REPORTING PERIOD FROM

TO

| PARAMETER | | QUANTITY | | | | | CONCENTRATION | | | | | FREQUENCY OF ANALYSIS | SAMPLE TYPE |
|------------------|------------------|----------|---------|---------|---------------|-------|---------------|---------|---------|--------|-------|-----------------------|-------------|
| | | MINIMUM | AVERAGE | MAXIMUM | UNITS | NO EX | MINIMUM | AVERAGE | MAXIMUM | UNITS | NO EX | | |
| BOD ₅ | REPORTED | | 100 | 157 | Lbs/day | 0 | | 7.1 | 9.6 | Mg/l | 0 | 2/7 | 24 |
| | PERMIT CONDITION | | 155 | 347.4 | Lbs/day | | | 10 | 20 | Mg/l | | 2/7 | 24 |
| TSS | REPORTED | | 65 | 128 | Lbs/day | 0 | | 5 | 11 | Mg/l | 0 | 2/7 | 24 |
| | PERMIT CONDITION | | 186 | 417 | Lbs/day | | | 12 | 24 | Mg/l | | 2/7 | 24 |
| FLOW | REPORTED | | 1.2 | 2.0 | MGD | 0 | | | | | | 7/7 | CONT |
| | PERMIT CONDITION | | | | MGD | | | | | | | 7/7 | CONT |
| COLIFORM | REPORTED | | | | | | | | 289 | 100/ML | 0 | 2/7 | Grab |
| | PERMIT CONDITION | | | | | | | | 400 | 100/ML | | 2/7 | Grab |
| CHLORINE | REPORTED | | | | Lbs/day | | | | 0.01 | Mg/l | 0 | 7/7 | Grab |
| | PERMIT CONDITION | | | | Lbs/day | | | | 0.75 | Mg/l | | 5/7 | Grab |
| P.H. | REPORTED | 7.1 | | 7.5 | Standard Unit | 0 | | | | | | 7/7 | Grab |
| | PERMIT CONDITION | 6.0 | | 9.0 | Standard Unit | | | | | | | 2/7 | Grab |
| AMMONIA/NITROGEN | REPORTED | | | | | | | 6.0 | | | 0 | 2/7 | 24 |
| | PERMIT CONDITION | | | | | | | 1.5/4.0 | | | | 2/7 | 24 |
| | REPORTED | | | | | | | | | | | | |
| | PERMIT CONDITION | | | | | | | | | | | | |

NAME OF PRINCIPAL EXECUTIVE OFFICER

TITLE OF THE OFFICER

DATE

Kolnsberg donald L.
 LAST FIRST MI

Foreman

9 0 1 1 1 4
 YEAR MO DAY

I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief such information is true, complete, and accurate.

Donald L. Kolnsberg
 SIGNATURE OF PRINCIPLE EXECUTIVE OFFICER OR AUTHORIZED AGENT

U-832-0092
 242 11/79

This Agency is authorized to require this information under Illinois Revised Statutes, 1979, Chapter 111 1/2, Section 1042. Disclosure of this information is required. Failure to do so may result in a civil penalty up to \$10,000.00 per day of violation or a fine up to \$25,000.00 per day of violation and imprisonment.

PAGE

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM COMMENTS

DISCHARGE MONITORING REPORT

PERMITTEE NAME USAF

ADDRESS SCOTT AFB, IL. 62225
618-256-4226

PHONE

COMMENTS

L REGION VI

(2 3)
IL
ST

0026859

PERMIT NUMBER

(17 19)
DIS

SIC

LATITUDE

LONGITUDE

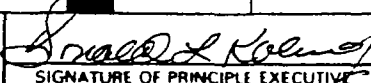
REPORTING PERIOD FROM

(20 21) (22 23) (24 25)
9 0 1 1 0 1
YEAR MO DAY

TO

(26 27) (28 29) (30 31)
9 0 1 1 3 0
YEAR MO DAY

| PARAMETER | | QUANTITY | | | | UNITS | NO EX | CONCENTRATION | | | | UNITS | NO EX | FREQUENCY OF ANALYSIS | SAMPLE TYPE |
|----------------------|---------------------|----------|---------|---------|---------------|-------|----------|---------------|---------|----------|------|-------|----------|-----------------------------|----------------|
| | | MINIMUM | AVERAGE | MAXIMUM | | | | MINIMUM | AVERAGE | MAXIMUM | | | | | |
| BOD5 | REPORTED | | 109 | 195 | LBS/ day | 0 | | 8.6 | 9 | Mg/L | 0 | 2/7 | 24 | | |
| | PERMIT CONDITION | | 155 | 347.4 | | | 10 | 20 | 2/7 | | 24 | | | | |
| TSS | REPORTED | | 78 | 245 | LBS/ day | 0 | | 6.1 | 22 | Mg/L | 0 | 2/7 | 24 | | |
| | PERMIT CONDITION | | 186 | 417 | | | 12 | 24 | 2/7 | | 24 | | | | |
| FLOW | REPORTED | | 1.42 | 4072 | MGD | 0 | | | | | | 7/7 | CONT | | |
| | PERMIT CONDITION | | | | | | | | 7/7 | | CONT | | | | |
| COLIFORM | REPORTED | | | | | | | | 256 | 100/Mg/L | 0 | 2/7 | GRAB | | |
| | PERMIT CONDITION | | | | | | | 400 | 2/7 | | GRAB | | | | |
| CHLORINE | REPORTED | | | | | | | .18 | | Mg/L | 0 | 7/7 | GRAB | | |
| | PERMIT CONDITION | | | | | | 0.75 | | 5/7 | | GRAB | | | | |
| P.H. | REPORTED | 7.1 | | 7.6 | Stand Unit | 0 | | | | | | 7/7 | GRAB | | |
| | PERMIT CONDITION | 6.0 | | 9.0 | | | | | 2/7 | | GRAB | | | | |
| AMMONIA/ NITROGEN | REPORTED | | | | | | | 1.7 | | | 0 | 2/7 | 24 | | |
| | PERMIT CONDITION | | | | | | 1.5/4.0 | | 2/7 | | 24 | | | | |
| | REPORTED | | | | | | | | | | | | | | |
| | PERMIT CONDITION | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | |
|-------------------------------------|-------|----|----------------------|--|--|-----------|----|-----|--|--|--|--|--|--|
| NAME OF PRINCIPAL EXECUTIVE OFFICER | | | TITLE OF THE OFFICER | | | DATE | | | I certify that I am familiar with the information contained in this report and that to the best of my knowledge and belief such information is true, complete, and accurate. | | |  SIGNATURE OF PRINCIPLE EXECUTIVE OFFICER OR AUTHORIZED AGENT | | |
| KOLNSBERG, DONALD L. | | | FOREMAN | | | 9 0 1 1 3 | | | | | | | | |
| LAST | FIRST | MI | TITLE | | | YEAR | MO | DAY | | | | | | |

ATTACHMENT 7

ANALYTICAL DATA FROM FIRE PROTECTION TRAINING AREA NO. 1

EXTRACTED FROM IRP PHASE II



TABLE ES-4
SUMMARY GROUND WATER ANALYTICAL RESULTS STAGE I REMEDIAL
INVESTIGATION/FEASIBILITY STUDY
SCOTT AIR FORCE BASE, ILLINOIS

| Site/Parameter (1) | Concentration (2) ug/l | Background (3) (where Available) | Potential ARAR (4) ug/l |
|--------------------|---------------------------|-------------------------------------|----------------------------|
|--------------------|---------------------------|-------------------------------------|----------------------------|

SITE 2 - FPTA 1

**Total Petroleum
Hydrocarbons (mg/l)**

ND-410

ND



TABLE ES-5 (cont'd)
SUMMARY SOIL ANALYTICAL RESULTS
STAGE I REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SCOTT AIR FORCE BASE, ILLINOIS

| <u>Site/Parameter (1)</u> | <u>Concentration</u> <u>mg/kg</u> | <u>Background</u> <u>Concentrations (2)</u> <u>mg/kg</u> |
|-------------------------------------|--------------------------------------|--|
| SITE 2 - FPTA 1 | | |
| Total Petroleum Hydrocarbons | ND-22 | ND |
| Inorganics | | |
| Lead (4) | 10.7-55.7 | 4.5-19.8 |





TABLE ES-7
TOTAL SITE-SPECIFIC RISK AT SCOTT AIR FORCE BASE

| Site | Exposed Population | Noncarcinogenic Hazard Indices | | Carcinogenic Risk | |
|------|--------------------|--------------------------------|---------------|-------------------|---------------|
| | | Maximum | Most Probable | Maximum | Most Probable |
| 2 | Adult | 5.94E-06 | 2.57E-06 | 5.23E-10 | 2.33E-10 |
| | Child 6-12 | 4.53E-05 | 1.96E-05 | 3.99E-09 | 1.78E-09 |
| | Child 2-6 | 2.61E-04 | 1.13E-04 | 2.30E-08 | 1.02E-08 |
| | Lifetime Weighted | 2.44E-05 | 1.06E-05 | 2.15E-09 | 9.56E-10 |

Values in bold type represent those numbers that exceed USEPA guidelines for acceptable risk (i.e., hazard index >1 or 1E-4)

083M176





TABLE ES-8
RISK ASSESSMENT SUMMARY

| SITE | EXPOSURE SCENARIO | RISK PRESENTED BY |
|-------------|--------------------------|--------------------------|
|-------------|--------------------------|--------------------------|

2 FPTA No. 1

No Unacceptable Risks

- * BTE - Benzo(a)pyrene toxic equivalent
- ** Arsenic present at concentrations below the MCL.
- Arsenic present at the MCL presents a 10E3 cancer risk.

ATTACHMENT 8

ANALYTICAL DATA FROM FIRE PROTECTION TRAINING AREA NO. 2

EXTRACTED FROM IRP PHASE II



TABLE ES-4
SUMMARY GROUND WATER ANALYTICAL RESULTS STAGE I REMEDIAL
INVESTIGATION/FEASIBILITY STUDY
SCOTT AIR FORCE BASE, ILLINOIS

| Site/Parameter (1) | Concentration (2) ug/l | Background (3) (where Available) | Potential ARAR (4) ug/l |
|--------------------|---------------------------|-------------------------------------|----------------------------|
|--------------------|---------------------------|-------------------------------------|----------------------------|

SITE 3 - FPTA 2

Volatiles

| | | |
|----------------------|-----|----|
| Bromodichloromethane | 4.8 | ND |
|----------------------|-----|----|

| | | |
|--|---------|-----|
| Total Petroleum Hydrocarbons (mg/l) | 1.1-2.4 | 2.4 |
|--|---------|-----|





TABLE ES-4 (cont'd)
SUMMARY GROUND WATER ANALYTICAL RESULTS STAGE I REMEDIAL
INVESTIGATION/FEASIBILITY STUDY
SCOTT AIR FORCE BASE, ILLINOIS

| Site/Parameter (1) | Concentration (2) ug/l | Background (3) (where Available) | Potential ARAR (4) ug/l |
|--------------------|---------------------------|-------------------------------------|----------------------------|
|--------------------|---------------------------|-------------------------------------|----------------------------|

SITE 3 - FPTA 2 (CONTINUED)

Total Inorganics (mg/l)(6)

| | | | |
|------------|-----------|--|----------|
| Lead | 0.06-0.34 | | 0.05 MCL |
| Arsenic | 0.03-0.16 | | 0.05 MCL |
| Barium (7) | 0.38-2.39 | | 1.0 MCL |
| Chromium | 0.04-0.39 | | 0.05 MCL |





TABLE ES-5 (cont'd)
SUMMARY SOIL ANALYTICAL RESULTS
STAGE I REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SCOTT AIR FORCE BASE, ILLINOIS

| <u>Site/Parameter (1)</u> | <u>Concentration</u> <u>mg/kg</u> | <u>Background</u> <u>Concentrations (2)</u> <u>mg/kg</u> |
|-------------------------------------|--------------------------------------|--|
| SITE 3 - FPTA 2 | | |
| Volatiles | | |
| Xylene | 2.7 | ND |
| Total Petroleum Hydrocarbons | 9-29 | ND |
| Inorganics | | |
| Arsenic | ND-170 | ND |
| Barium | 94.1-145 | 22.2-28.6 |
| Chromium | 7.1-20.3 | 3.3-5.3 |
| Lead | 6.3-218 | 4.5-19.8 |
| Silver | 12.2 | ND |
| Mercury | 8.2 | ND |
| Selenium | 64-223 | ND-60.6 |





TABLE ES-7
TOTAL SITE-SPECIFIC RISK AT SCOTT AIR FORCE BASE

| Site | Exposed Population | Noncarcinogenic Hazard Indices | | Carcinogenic Risk | |
|------|-----------------------|--------------------------------|-----------------|-------------------|-----------------|
| | | Maximum | Most Probable | Maximum | Most Probable |
| 3 | Adult | 7.16E+00 | 3.55E+00 | 6.18E-03 | 2.94E+00 |
| | Child 6-12 | 1.73E+01 | 8.61E+00 | 1.58E-02 | 7.12E-03 |
| | Child 2-6 | 3.12E+01 | 1.55E+01 | 2.70E-02 | 1.29E-02 |
| | Lifetime Weighted | 9.47E+00 | 4.70E+00 | 8.18E-03 | 3.89E-03 |

Values in bold type represent those numbers that exceed USEPA guidelines for acceptable risk (i.e., hazard index >1 or 1E-4)

083M176



TABLE ES-8
RISK ASSESSMENT SUMMARY

| SITE | EXPOSURE SCENARIO | RISK PRESENTED BY |
|--------------|--|---|
| 3 FFTA No. 2 | Ground water ingestion Soil ingestion | Cadium, Chromium, Lead, Arsenic Arsenic |

- * BTE - Benzo(a)pyrene toxic equivalent
- ** Arsenic present at concentrations below the MCL.
Arsenic present at the MCL presents a 10E3 cancer risk.



ATTACHMENT 9

ANALYTICAL DATA FROM FIRE PROTECTION TRAINING AREA NO. 3

EXTRACTED FROM IRP PHASE II



TABLE ES-4 (cont'd)
SUMMARY GROUND WATER ANALYTICAL RESULTS STAGE I REMEDIAL
INVESTIGATION/FEASIBILITY STUDY
SCOTT AIR FORCE BASE, ILLINOIS

| Site/Parameter (1) | Concentration (2) ug/l | Background (3) (where Available) | Potential ARAR (4) ug/l |
|--------------------|---------------------------|-------------------------------------|----------------------------|
|--------------------|---------------------------|-------------------------------------|----------------------------|

SITE 4 - FPTA 3

Volatiles

| | | | |
|----------------------|----------|--|-----------|
| Vinyl Chloride | 9.0 | | 2 MCL |
| t-1,2 Dichloroethene | 83.0 | | 100 PMCL |
| Trichloroethane | 26 | | 5 MCL |
| Benzene | 0.74-3.8 | | 5 MCL |
| Toluene | 6.3 | | 2000 PMCL |

| | | | |
|--|---------|--|--|
| Total Petroleum Hydrocarbons (mg/l) | 1.1-9.7 | | |
|--|---------|--|--|

0820M172





TABLE ES-5 (cont'd)
SUMMARY SOIL ANALYTICAL RESULTS
STAGE I REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SCOTT AIR FORCE BASE, ILLINOIS

| <u>Site/Parameter (1)</u> | <u>Concentration</u> <u>mg/kg</u> | <u>Background</u> <u>Concentrations (2)</u> <u>mg/kg</u> |
|---------------------------|--------------------------------------|--|
|---------------------------|--------------------------------------|--|

SITE 4 - FPTA 3

Volatiles

| | | |
|--------------------|--------|----|
| Ethylbenzene | 1.1 | ND |
| Xylene | 4.5-11 | ND |
| 1,2-Dichloroethane | 0.013 | ND |

Semivolatiles

| | | |
|---------------------|-----------|----|
| Naphthalene | 0.57-1.33 | ND |
| 2-Methylnaphthalene | 0.65-1.8 | ND |

**Total Petroleum
Hydrocarbons (3)**

| | |
|---------|----|
| ND-4700 | ND |
|---------|----|

Inorganics

| | | |
|------|-----------|---------|
| Lead | 19.9-73.6 | 45-19.8 |
|------|-----------|---------|





TABLE ES-7
TOTAL SITE-SPECIFIC RISK AT SCOTT AIR FORCE BASE

| Site | Exposed Population | Noncarcinogenic Hazard Indices | | Carcinogenic Risk | |
|------|--------------------|--------------------------------|---------------|-------------------|-----------------|
| | | Maximum | Most Probable | Maximum | Most Probable |
| 4 | Adult | 7.94E-01 | 2.66E-01 | 9.80E-04 | 3.36E-04 |
| | Child 6-12 | 1.17E+00 | 3.92E-01 | 1.81E-03 | 6.21E-04 |
| | Child 2-6 | 1.30E+00 | 4.37E-01 | 2.67E-03 | 9.14E-04 |
| | Lifetime Weighted | 8.57E-01 | 2.87E-01 | 1.15E-03 | 3.95E-04 |

Values in bold type represent those numbers that exceed USEPA guidelines for acceptable risk (i.e., hazard index >1 or 1E-4)

083M176





TABLE ES-8
RISK ASSESSMENT SUMMARY

| SITE | EXPOSURE SCENARIO | RISK PRESENTED BY |
|--------------|--|--|
| 4 FPTA No. 3 | Bathing (inhalation) Ground water ingestion | trans,1-2-dichlorethene, Vinyl Chloride Vinyl Chloride |

- * BTE - Benzo(a)pyrene toxic equivalent
- ** Arsenic present at concentrations below the MCL.
Arsenic present at the MCL presents a 10E3 cancer risk.



ATTACHMENT 10

ANALYTICAL DATA FROM FACILITY 8550 SPILL SITE

EXTRACTED FROM IRP PHASE II



TABLE ES-4 (cont'd)
SUMMARY GROUND WATER ANALYTICAL RESULTS STAGE I REMEDIAL
INVESTIGATION/FEASIBILITY STUDY
SCOTT AIR FORCE BASE, ILLINOIS

| Site/Parameter (1) | Concentration (2) ug/l | Background (3) (where Available) | Potential ARAR (4) ug/l |
|--------------------|---------------------------|-------------------------------------|----------------------------|
|--------------------|---------------------------|-------------------------------------|----------------------------|

SITE 5 - FACILITY 8550

**Total Petroleum
Hydrocarbons (7)**

ND-7.8

0820M172





TABLE ES-5 (cont'd)
SUMMARY SOIL ANALYTICAL RESULTS
STAGE I REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SCOTT AIR FORCE BASE, ILLINOIS

| Site/Parameter (1) | Concentration mg/kg | Background Concentrations (2) mg/kg |
|---|------------------------|---|
| SITE 5 - FACILITY 8550 | | |
| Semivolatiles | | |
| 2-Methylnaphthalene | 7.9-32 | ND |
| Di-n-butylphthalate | 0.69 | ND |
| Fluoranthene | 0.41-0.5 | ND |
| Pyrene | 0.71-1.1 | ND |
| 1,2,4-Trichlorobenzene | 0.62 | ND |
| Total Petroleum Hydrocarbons (3) | 4-3900 | ND |





TABLE ES-7
TOTAL SITE-SPECIFIC RISK AT SCOTT AIR FORCE BASE

| Site | Exposed Population | Noncarcinogenic Hazard Indices | | Carcinogenic Risk | |
|------|--------------------|--------------------------------|---------------|-------------------|---------------|
| | | Maximum | Most Probable | Maximum | Most Probable |
| 5 | Adult | 2.30E-04 | 3.79E-05 | 4.71E-06 | 7.95E-07 |
| | Child 6-12 | 2.65E-04 | 4.45E-05 | 4.92E-06 | 8.30E-07 |
| | Child 2-6 | NA | NA | NA | NA |
| | Lifetime Weighted | 2.20E-04 | 3.63E-05 | 4.45E-06 | 7.51E-07 |
| | | | | | |

Values in bold type represent those numbers that exceed USEPA guidelines for acceptable risk (i.e., hazard index >1 or 1E-4)

083M176





TABLE ES-8
RISK ASSESSMENT SUMMARY

| SITE | EXPOSURE SCENARIO | RISK PRESENTED BY |
|-------------|--------------------------|--------------------------|
|-------------|--------------------------|--------------------------|

5 Facility 8550

No Unacceptable Risks

- * BTE - Benzo(a)pyrene toxic equivalent
- ** Arsenic present at concentrations below the MCL.
Arsenic present at the MCL presents a 10E3 cancer risk.



ATTACHMENT 11

ANALYTICAL DATA FROM FACILITY 1965 SPILL SITE

EXTRACTED FROM IRP PHASE II



TABLE ES-4 (cont'd)
SUMMARY GROUND WATER ANALYTICAL RESULTS STAGE I REMEDIAL
INVESTIGATION/FEASIBILITY STUDY
SCOTT AIR FORCE BASE, ILLINOIS

| Site/Parameter (1) | Concentration (2) ug/l | Background (3) (where Available) | Potential ARAR (4) ug/l |
|--------------------|---------------------------|-------------------------------------|----------------------------|
|--------------------|---------------------------|-------------------------------------|----------------------------|

SITE 6 - FACILITY 1965

Volatiles

| | | |
|--------------|---------|------------|
| Benzene | ND-7200 | 5 MCL |
| Ethylbenzene | ND-150 | 700 PMCL |
| Toluene | ND-1900 | 2000 MCLG |
| Xylene | ND-2600 | 10000 PMCL |

0820M172





TABLE ES-4 (cont'd)
SUMMARY GROUND WATER ANALYTICAL RESULTS STAGE I REMEDIAL
INVESTIGATION/FEASIBILITY STUDY
SCOTT AIR FORCE BASE, ILLINOIS

| Site/Parameter (1) | Concentration (2) ug/l | Background (3) (where Available) | Potential ARAR (4) ug/l |
|--|---------------------------|-------------------------------------|----------------------------|
| SITE 6 - FACILITY 1965 (CONTINUED) | | | |
| Semivolatiles | | | |
| Napthalene | ND-150 | | |
| 2-methyl napthalene | ND-32 | | 700 PMCL |
| Total Petroleum Hydrocarbons (mg/l) | ND-63 | | |

- (1) Parameters include only those compounds quantitatively confirmed unless noted.
- (2) Range of concentration provided where contaminants detected in more than one sample from each site.
- (3) Background presented at those sites where there were wells located upgradient of the suspected source of contamination.
- (4) ARARs developed from Federal Safe Drinking Water Act. MCL - refers to the Maximum Contaminant Levels under the Safe Drinking Water Act. PMCL is a proposed MCL under the Act. MCLG refers to the Maximum Contaminant Level Goal under the Act. PMCLG refers to the proposed MCLG.
- (5) MCL is for total trihalomethanes.
- (6) Only inorganics quantitatively detected at concentrations above ARARs are presented.
- (7) Concentrations are quantitative estimates only.





TABLE ES-5 (cont'd)
SUMMARY SOIL ANALYTICAL RESULTS
STAGE I REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SCOTT AIR FORCE BASE, ILLINOIS

| <u>Site/Parameter (1)</u> | <u>Concentration</u> <u>mg/kg</u> | <u>Background</u> <u>Concentrations (2)</u> <u>mg/kg</u> |
|---|--------------------------------------|--|
| SITE 6 - FACILITY 1965 | | |
| Semivolatiles | | |
| Naphthalene | ND | ND |
| 2-Methylnaphthalene | ND-4.1 | ND |
| Di-n-butylphthalate | ND-1.4 | ND |
| Total Petroleum Hydrocarbons (3) | ND-730 | ND |
| Inorganics | | |
| Lead | 20.8-79 | 4.1-19.8 |





TABLE ES-7
TOTAL SITE-SPECIFIC RISK AT SCOTT AIR FORCE BASE

| Site | Exposed Population | Noncarcinogenic Hazard Indices | | Carcinogenic Risk | |
|------|-----------------------|--------------------------------|---------------|-------------------|-----------------|
| | | Maximum | Most Probable | Maximum | Most Probable |
| 6 | Adult | 1.53E+00 | 3.86E-01 | 4.00E-02 | 9.99E-03 |
| | Child 6-12 | 2.26E+00 | 5.69E-01 | 5.89E-02 | 1.47E-02 |
| | Child 2-6 | 2.52E+00 | 6.33E-01 | 6.56E-02 | 1.64E-02 |
| | Lifetime Weighted | 1.65E+00 | 4.17E-01 | 4.32E-02 | 1.08E-02 |

Values in bold type represent those numbers that exceed USEPA guidelines for acceptable risk (i.e., hazard index >1 or 1E-4)

083M176





TABLE ES-8
RISK ASSESSMENT SUMMARY

| SITE | EXPOSURE SCENARIO | RISK PRESENTED BY |
|-----------------|--|-----------------------------|
| 6 Facility 1965 | Bathing (inhalation) Ground water ingestion | Toluene, Benzene Benzene |

- * BTE - Benzo(a)pyrene toxic equivalent
- ** Arsenic present at concentrations below the MCL.
Arsenic present at the MCL presents a 10E3 cancer risk.



ATTACHMENT 12

ANALYTICAL DATA FROM BUILDING 1680 CRAWL SPACE

EXTRACTED FROM IRP PHASE II



TABLE ES-5 (cont'd)
SUMMARY SOIL ANALYTICAL RESULTS
STAGE I REMEDIAL INVESTIGATION/FEASIBILITY STUDY
SCOTT AIR FORCE BASE, ILLINOIS

| <u>Site/Parameter (1)</u> | <u>Concentration mg/kg</u> | <u>Background Concentrations (2) mg/kg</u> |
|-------------------------------|--------------------------------|--|
| Site 8 - Building 1680 | | |
| Mercury (4) | 0.28-343 | ND |

- (1) Parameters include only those compounds quantitatively detected unless noted.
- (2) Samples used to determine background concentrations include the following:

| Well | Depth Interval (ft.BLS) |
|------|--|
| 5-1 | 2-4, 33-35 organics only, no inorganics analyzed |
| 6-1 | 8-10, 13-15 no inorganics except lead |
| 7-1 | 23-25, 28-30 |

- (3) Concentrations are quantitative estimates.
- (4) Inorganics listed are present above base background levels.

NA - Not available





TABLE ES-7
TOTAL SITE-SPECIFIC RISK AT SCOTT AIR FORCE BASE

| Site | Exposed Population | Noncarcinogenic Hazard Indices | | Carcinogenic Risk | |
|------|--------------------|--------------------------------|-----------------|-------------------|---------------|
| | | Maximum | Most Probable | Maximum | Most Probable |
| 8 | Adult | 1.14E+06 | 7.40E+04 | NA | NA |
| | Child 6-12 | NA | NA | NA | NA |
| | Child 2-6 | NA | NA | NA | NA |
| | Lifetime Weighted | 9.72E+05 | 6.31E+04 | NA | NA |

Values in bold type represent those numbers that exceed USEPA guidelines for acceptable risk (i.e., hazard index >1 or 1E-4)



TABLE ES-8
RISK ASSESSMENT SUMMARY

| SITE | EXPOSURE SCENARIO | RISK PRESENTED BY |
|------|-------------------|-------------------|
|------|-------------------|-------------------|

8 Bldg. 1680

Inhalation

Mercury

- * BTE - Benzo(a)pyrene toxic equivalent
- ** Arsenic present at concentrations below the MCL.
Arsenic present at the MCL presents a 10E3 cancer risk.



ATTACHMENT 13

BASE LAYOUT PLAN SHOWING LOCATION OF SOLID
WASTE MANAGEMENT UNITS

Missing

DE

17 MAR 1987

Closure Certification Statement (Reference USEPA #IL7570024177)

Illinois Environmental Protection Agency
Division of Land Pollution Control
Enforcement Section, ATTN: Bruce Carlson
2200 Churchill Road
Springfield IL 62706

1. Attached for your information and continued processing is the closure certification statement. Submission of this statement completes the approved closure plan which was submitted to your office on 1 Aug 86.
2. If you have any questions, please contact Capt Paul R. Munnell at (618)256-2092.

SIGNED

WALTER E. SMITH, Lt Col, USAF
Base Civil Engineer

1 Atch
Statement

cc: U.S. Environmental Protection Agency
Region 5
ATTN: Oliver Warnsley
230 S. Dearborn Street
Chicago, IL 60604

RECEIVED
MAR 20 1987
U.S. EPA REGION V
WASTE MANAGEMENT DIVISION
HIGHLIGHTS WASTE PREVENTION UNIT



ATTACHMENT


This statement is to be completed by both the responsible officer and by the registered professional engineer upon completion of closure. At least one copy of the certification must contain the original signatures.

Closure Certification Statement

The hazardous waste management unit at the facility described in this document has been closed in accordance with the specifications in the approved closure plan. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

IL7570024177
USEPA ID Number

Scott AFB DRMO Yard
Facility Name

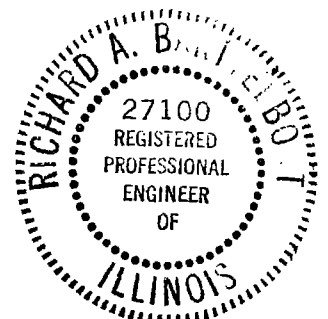

Signature of Owner/Operator

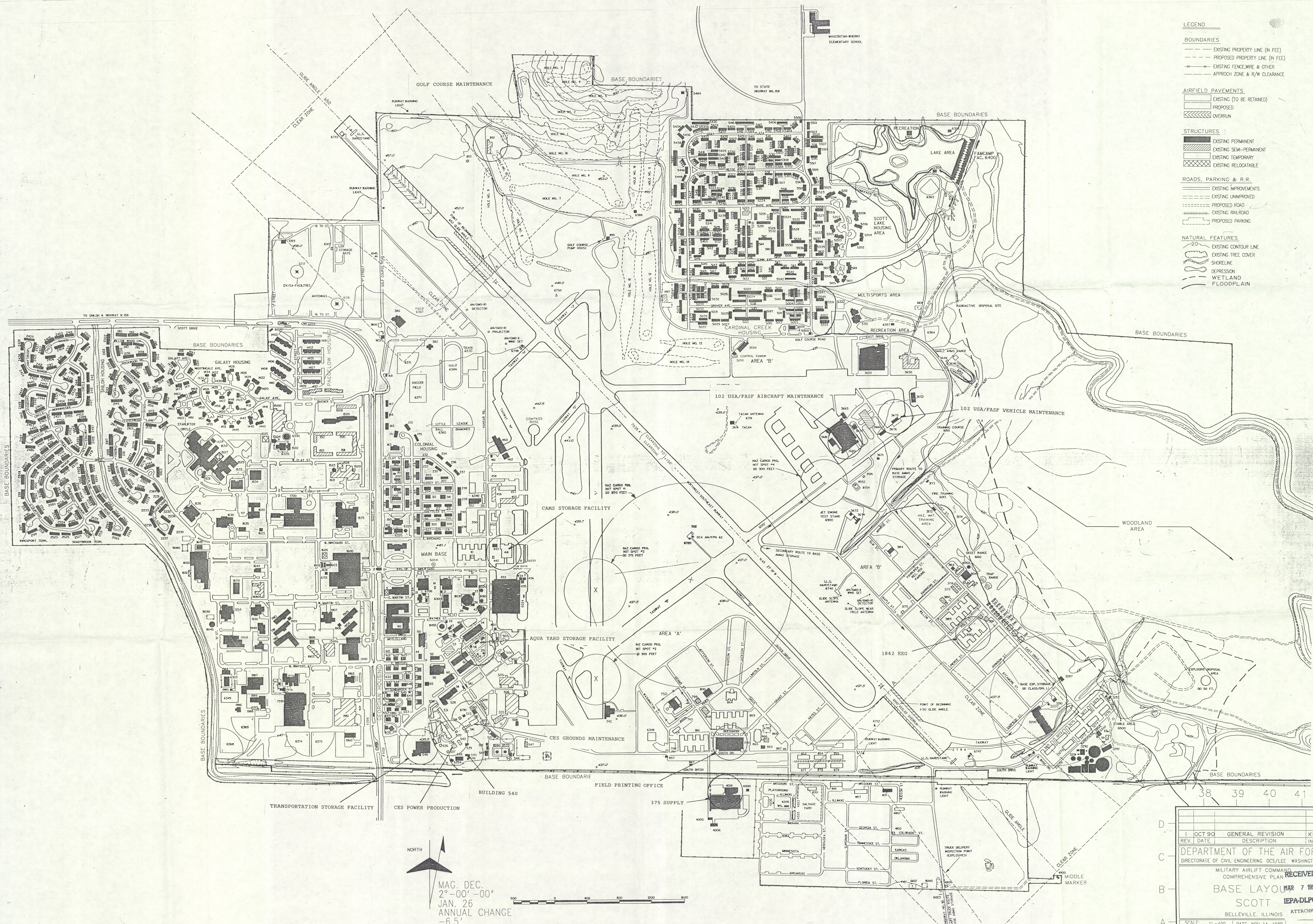
Cozzie B. Webb, Jr. Chief, DRMO
Name and Title


Signature of Registered P.E.

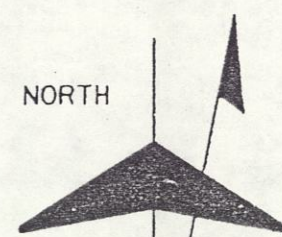
Richard A. BATTENBURT TII - 27100
Name of Registered P.E. and
Registration Number

3/3/87
Date





- LEGEND**
- BOUNDARIES**
- EXISTING PROPERTY LINE (N. FEE)
 - PROPOSED PROPERTY LINE (N. FEE)
 - EXISTING FENCEWIRE & OTHER
 - APPROACH ZONE & R/W CLEARANCE
- AIRFIELD PAVEMENTS**
- EXISTING (TO BE RETAINED)
 - PROPOSED
 - OVERRUN
- STRUCTURES**
- EXISTING PERMANENT
 - EXISTING SEMI-PERMANENT
 - EXISTING TEMPORARY
 - EXISTING RELOCATABLE
- ROADS, PARKING & R.R.**
- EXISTING IMPROVEMENTS
 - EXISTING UNIMPROVED
 - PROPOSED ROAD
 - EXISTING RAILROAD
 - PROPOSED PARKING
- NATURAL FEATURES**
- EXISTING CONTOUR LINE
 - EXISTING TREE COVER
 - SHORELINE
 - DEPRESSION
 - WETLAND
 - FLOODPLAIN



MAG. DEC.
2°-00'-00"
JAN. 26
ANNUAL CHANGE
-6.5'



| | | | |
|---|--------|------------------|----------|
| 1 | OCT 90 | GENERAL REVISION | KBR |
| REV. | DATE | DESCRIPTION | INITIALS |
| DEPARTMENT OF THE AIR FORCE | | | |
| DIRECTORATE OF CIVIL ENGINEERING DCS/LEE WASHINGTON, D.C. | | | |
| MILITARY AIRLIFT COMMAND | | | |
| COMPREHENSIVE PLAN | | | |
| RECEIVED | | | |
| BASE LAYOUT | | | |
| SCOTT | | | |
| BELLEVILLE, ILLINOIS | | | |
| ATTACHMENT 3 | | | |
| SCALE: 1"=400' DATE: NOV 14 1991 | | | |



ATTACHMENT 5

SHEET No.

OF

RECEIVED
MAR 7 1991
IEPA-DLPC

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

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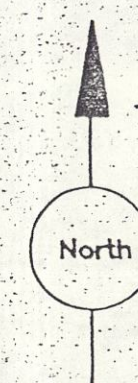
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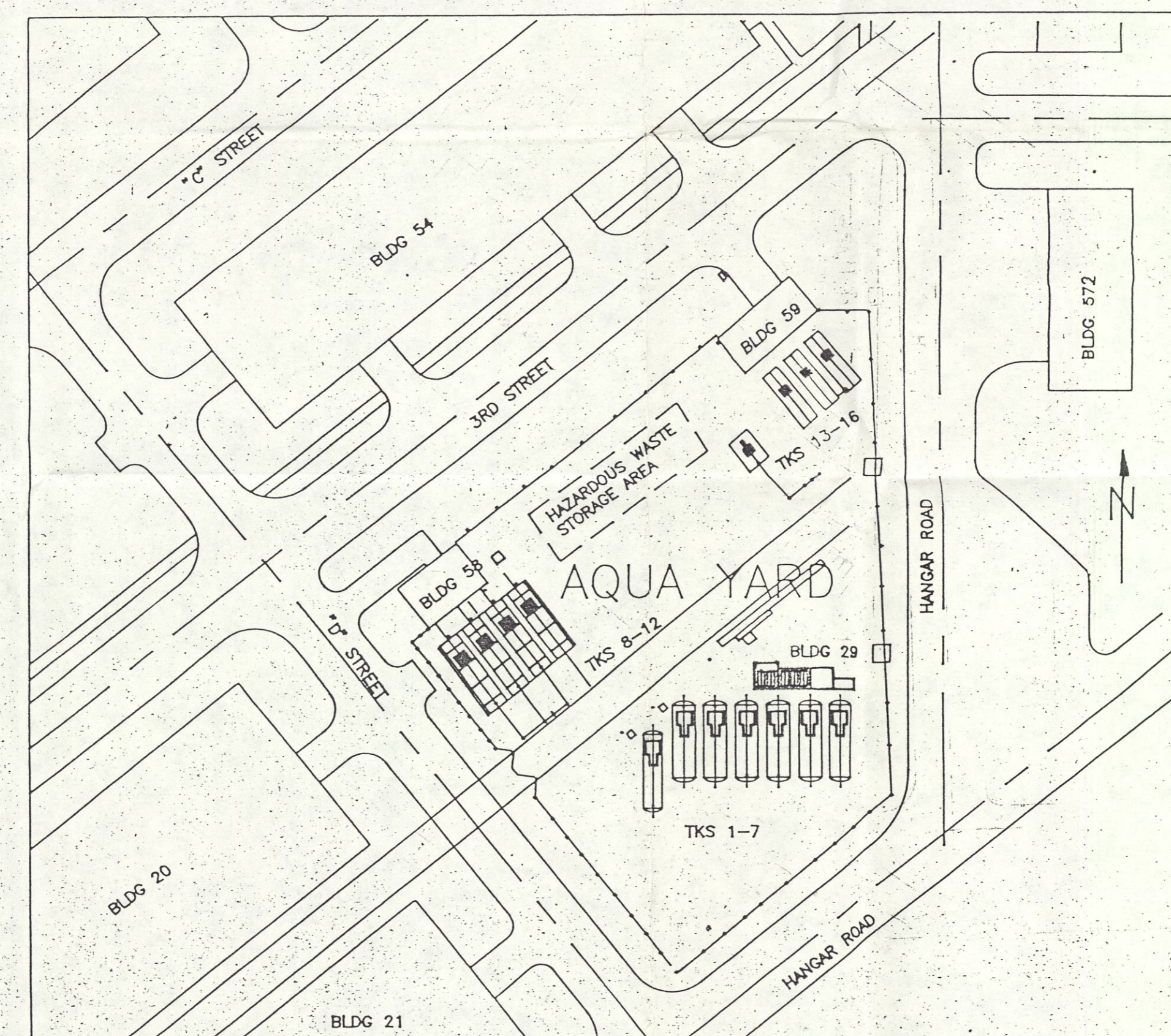
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SCOTT AIR FORCE BASE

PROJECT SITE LOCATION
SEE ENLARGED PLAN



PROJECT LOCATION MAP



PROJECT SITE PLAN

NOTES:

1. ADDITIONAL INFORMATIONAL DRAWINGS ARE ON FILE IN THE DRAFTING SECTION IN HEADQUARTERS, 3510TH INSTALLATION GROUP, SCOTT AIR FORCE BASE, ILLINOIS.
2. THE WORK COVERED BY THIS PROJECT CONSISTS OF FURNISHING ALL MATERIALS, ACCESSORIES, EQUIPMENT, TOOLS, TRANSPORTATION, SERVICES, LABOR AND PERFORMING ALL OPERATIONS REQUIRED TO ACCOMPLISH CLOSURE OF SIXTEEN (16) UNDERGROUND STORAGE TANK SYSTEMS AND RELATED WORK AS DESCRIBED IN THE SPECIFICATIONS AND AS SHOWN ON THE DRAWINGS AND/OR AS REMOVAL MAY BE INCIDENTAL TO THE EXECUTION OF THE COMPLETION OF THE WORK, INCLUDING MINOR INTERCONNECTING, PIPING WORK, ELECTRICAL CIRCUITS, ETC.
3. THE CONTRACTOR SHALL INFORM HIMSELF OF THE LOCATION AND EXTENT OF ALL EXISTING UTILITIES BEFORE THE START OF ANY EXCAVATION. HE SHALL NOTIFY ALL PUBLIC AND PRIVATE UTILITIES SUFFICIENTLY IN ADVANCE TO PERMIT THEM TO MOVE, RELOCATE OR REMOVE THEIR LINES OR APPURTENANCES AS REQUIRED TO AVOID ANY DAMAGE TO THE UTILITY LINES OR INTERFERENCE WITH HIS WORK.
4. CONTRACTOR SHALL PROVIDE SUFFICIENT TEMPORARY ELECTRIC AND TELEPHONE SERVICE TO THE CONSTRUCTION OFFICE/STORAGE AREA TO PERFORM CONSTRUCTION ACTIVITIES.

NOTES CONT.

5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO EVALUATE THE NEED FOR SHORING TO PRESERVE THE STRUCTURAL INTEGRITY OF BUILDINGS, UTILITIES, AND OTHER PERMANENT FIXTURES PRIOR TO BID SUBMITTAL. THE COST OF SHORING, IF REQUIRED, WILL BE PRESENTED IN THE CONTRACTOR'S BID. THE OWNER RETAINS THE AUTHORITY TO REQUIRE AND APPROVE THE SHORING METHOD USED TO PRESERVE THE STRUCTURAL INTEGRITY OF BUILDINGS, UTILITIES, AND OTHER PERMANENT FIXTURES.
6. NO SMOKING WILL BE ALLOWED ON THE SITE DURING THE PERFORMANCE OF ANY PORTION OF THIS WORK.
7. PRIOR TO RECEIPT OF NOTICE TO PROCEED, THE CONTRACTOR SHALL SHOW PROOF OF REGISTRATION WITH THE ILLINOIS OFFICE OF THE STATE FIRE MARSHAL TO REMOVE TANKS AND THAT THE CONTRACTOR HAS OBTAINED ALL THE NECESSARY PERMITS REQUIRED TO PERFORM THE WORK DESCRIBED IN THE CONTRACT DOCUMENTS.
8. THE EXISTING HAZARDOUS WASTE STORAGE FACILITY, LOCATED IN THE AQUA YARD, IS IN THE PROCESS OF CLOSURE. A CLOSURE PLAN WAS SUBMITTED TO IEPA IN DECEMBER 1990. THE CONTRACTOR SHALL COORDINATE ALL WORK UNDER THIS CONTRACT WITH ANY CLOSURE ACTIVITIES ASSOCIATED WITH THE EXISTING HAZARDOUS WASTE STORAGE FACILITY. INFORMATION REGARDING THE CLOSURE IS AVAILABLE FROM THE OWNER AND IEPA.

TABLE 1
AQUA YARD TANK INDEX

| Tank No. | Tank Location | Nearest Building | Tank Capacity (Gals) | Tank Diameter (ft) | Total Tank Contents (Gals) | Gallons of Product | Gallons of Water | Material Shown* |
|----------|-----------------|------------------|----------------------|--------------------|----------------------------|--------------------|------------------|-------------------------|
| 1 | F-4 (Aqua yard) | 29 | 25,000 | 10.5 | 5,964 | 5,964 | 1,219 | #2 fuel oil |
| 2 | F-4 (Aqua yard) | 29 | 25,000 | 10.5 | 2,969 | 1,350 | 1,219 | #2 fuel oil |
| 3 | F-4 (Aqua yard) | 29 | 25,000 | 10.5 | 158 | 158 | | #2 fuel oil |
| 4 | F-4 (Aqua yard) | 29 | 25,000 | 10.5 | 2,039 | 2,039 | | Fiberglass |
| 5 | F-4 (Aqua yard) | 29 | 25,000 | 10.5 | 14,907 | 3,818 | 11,089 | #2 fuel oil |
| 6 | F-4 (Aqua yard) | 29 | 25,000 | 10.5 | 25,000+ | 250 | 25,000+ | Mixed contaminated fuel |
| 7 | F-4 (Aqua yard) | 29 | 14,000 | 8.0 | 1,316 | 596 | 720 | Fiberglass |
| 8 | F-4 (Aqua yard) | 58 | 12,000 | 8.0 | 12,000+ | | 12,000+ | Fiberglass |
| 9 | F-4 (Aqua yard) | 58 | 12,000 | 8.0 | 9,018 | 9,018 | | Fiberglass |
| 10 | F-4 (Aqua yard) | 58 | 12,000 | 8.0 | 4,236 | 4,236 | | Deicing fluid |
| 11 | F-4 (Aqua yard) | 58 | 12,000 | 8.0 | 663 | | 663 | Deicing fluid |
| 12 | F-4 (Aqua yard) | 58 | 1,000 | 5.32 | 72 | 46 | 26 | Fiberglass |
| 13 | F-4 (Aqua yard) | 59 | 10,000 | 8.0 | 7,059 | | 7,059 | Waste jet fuel |
| 14 | F-4 (Aqua yard) | 59 | 10,000 | 8.0 | 10,000+ | | 10,000+ | Mixed contaminated fuel |
| 15 | F-4 (Aqua yard) | 59 | 10,000 | 8.0 | 2,585 | 2,585 | | Waste oil |
| 16 | F-4 (Aqua yard) | 59 | 10,000 | 8.0 | 2,223 | | 2,223 | Waste synthetic oil |

*Information from Scott AFB Records Review
*Product extends up fill pipe or vent pipe
*Tank could not be accessed
*Product and water mix

| | | | | | | | | | | | | | |
|--------------------------|--|------|--|----------------|--|-------------|--|----------------|--|--------|--|--------|--|
| COORDINATION | | REV | | DATE | | DESCRIPTION | | DRAWN | | APPR'D | | | |
| OFFICE | | DATE | | REV | | DATE | | DESCRIPTION | | DRAWN | | APPR'D | |
| MILITARY AIRLIFT COMMAND | | | | | | | | | | | | | |
| FIRE CHIEF | | | | | | | | | | | | | |
| SAFETY | | | | | | | | | | | | | |
| BIO-ENVIRONMENTAL ENG | | | | | | | | | | | | | |
| CORROSION ENG | | | | | | | | | | | | | |
| USING AGENCY | | | | | | | | | | | | | |
| CONSTRUCTION MANAGER | | | | | | | | | | | | | |
| BASE COMMUNICATIONS | | | | | | | | | | | | | |
| SUBMITTED | | | | APPROVED | | | | APPROVED | | | | | |
| DRAWN BY | | | | DESIGNED BY | | | | DATE | | | | | |
| DLCS | | | | DLCS | | | | 1-31-91 | | | | | |
| SCALE | | | | PROJECT NUMBER | | | | ATTACHMENT 6 | | | | | |
| | | | | 3434-4 | | | | DRAWING NUMBER | | | | | |

STANDARD D LAYOUT (23 X 35")